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THE SYMBOLIC SOURCES OF SOME ARCHITECTURAL ELEMENTS

PHYLLIS ACKERMAN

SYMBOLIC interpretations of architectural forms and elements have properly become generally suspect, chiefly owing to periodic outbursts in the last twenty or thirty years of random bright ideas, inspired usually by too-popular psychoanalytic theses. Architectural historians might understandably reject the very possibility of symbolism almost sight-unseen after reading, for example, a solemn asseveration that the nave of a Gothic cathedral represents the womb of the Virgin.

Moreover, behind such rather recently engendered suspicions of symbolic architectural interpretations there are also widely established materialistic and "evolutionary" assumptions which have been influential in architectural history for some three-quarters of a century. In this mode of thinking the dome, for instance, may be "explained" as originating in the "natural" roof of a reed hut, which presumably would have been roughly hemispherical, or by others in the beehive form of primitive mud huts. Then from this proposed initiation by material and technical circumstances, the historian's imagination reconstructs the dome's subsequent gradual evolution, entirely in terms of building problems. This is an application of the Marxian theory of history: determinism by economic conditions, in the inclusive sense of available resources, current skills and practical needs; and like all applications of this dogma, it represents a partial truth rendered false by over-expansion. In the creative activities of evolved human beings, material possibilities do not exercise the tyranny of cause, but only condition, more or less, the execution of purpose.

Even more fallacious is the "modernist" promotion of the Marxian formula from cause to norm, the attempt to substitute for architectural design mere structure in terms of technical and functional minima. This exaggeration of Marxian categories, which has become a creed in some of the most intensely anti-Marxist centers, is, by an odd

anomaly, repudiated today in the very kingdom of Marxism, the U.S.S.R.

An historian equally free of pseudo-psychoanalytic fancies and of Marxian prepossessions (conscious or subconscious) will look for origins of architectural forms in the total complex of cultural matrices from which they emerged, and thereby will come to realise that certain basic architectural factors go back in origin and, to a greater or lesser degree, in development, to periods in which symbolism was a fundamental technique of practical thinking. Not only were the scheme and values of life patterned according to a mythic theory of the universe and its origins, but functions and facts were construed to accord with the current picture of the cosmos. Symbolism was a kind of insurance: success depended on cosmic conformity, and this held for architecture as it did for agriculture, medicine and the hazards of travel and trade.

This architectural symbolism was, therefore, not arbitrary or individual; it was controlled by an extensive coherent and mandatory system of ideas. Symbolic architectural forms were only one of many expressions of the very grammar and syntax of life.

The primitive cosmic speculations which determined the original symbolic architectural elements were a spontaneous product of the most elementary type of intellection, analogical thinking, aimed at solving Man's abiding primary problems—first sustaining, then expanding and enriching life. Only a substantial volume can trace the whole story from its faintly visible opening in megalithic culture (perhaps earlier), down through the ages and across the world; but meanwhile, a summary may, even at the risk of seeming unsubstantiated, somewhat counteract present anti-symbolic prejudices.

Man bestirred himself to proto-scientific, pre-philosophic thinking in order, first, to eat. As a start he had to recognise the relation of plant growth to weather and water, whether provided directly as rain, or less directly from melting snows or the rise of rivers. This involved recognising and timing the seasonal cycle. Sky observations, both day and night, afforded the only measures for annual time as they had for diurnal time, and also gradually gave some

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possibility of weather forecasting. The heavens were thus identified as the source of both security and danger, which might therefore be controlled by understanding the heavens.

The resultant analogical theorising was not, of course, self-conscious, let alone explicitly verbal; it was immediate, observational, not reflective and hence not, to the propagators, speculative; it was, by their automatic assumptions, perception of fact. Consequently, any restatement cannot but falsify the character of the historical process.

Since the heavens were the source of the all-important weather, also, directly or indirectly, of irrigation, and likewise of the critical seasons (because seasons were timed by sky-observations it was taken for granted that they came from the sky), heaven must be the source of the world itself and all that it contained, including Man. Thus cosmogony became an essential support to cosmology, and analogy was inverted to produce a basic axiom that the topography of the heavens was established first and the world was made in its image. Man, in order to assure security for the world and thus for himself, should in his constructions remain true to the pattern of heaven. Architecture, Man's most conspicuous modification of natural environment, was as a matter of prudence (the ambiguous term "magic" is often introduced here) controlled by cosmic imitation. It is thus that symbolic architecture was to its remote originators reasonable and practical, indeed virtually imperative.

To make sure that celestial patterns were authentically reflected, early architects and stone-masons were usually closely connected with the cult. Thus in Egypt a Great Chief of Works, who controlled religious construction and stone-carving, was High-Priest of Ptah, the Creator-god.¹ A similar connection between sacerdotal and architectural responsibility lingers in our term "Pontiff" (and its derivatives), transmitted through a Roman title for priestly construction-engineers, *Pontifex*, "Bridge-builder."

The most important of the symbolic architectural ideas and elements resulting from this system and persisting in the history of architecture are: the practice of erecting significant buildings on an elevation, usually in part, at least, artificial—not only temples but also palaces and other community foci, and likewise mortuary monuments; the pyramidal forms, whether used as a foundation platform, entire monument or roofing element; compass orientation of the ground plan; the dome, pyramidal, conical, or the "true" hemispherical dome and its variants, such as the "onion" and the "melon" dome; non-structural use of posts and columns, and such derivatives as pilasters and colonnettes; the ridged roof and gable, or later pediment, whether used for the entire building or elements thereof, notably to emphasise doors and windows; architecturally elaborated gates, including completely non-functional gates, and similarly the development of portals with architectural elaboration; concentration of attention on the

culminating center of the building or building-complex, both exteriorly and interiorly, usually by symbolic decoration.

The original symbolic value of most of these architectural features has been recognised from time to time and the symbolic origin of some has been traced; but it has not been made sufficiently clear that all these elements took form as expressions of one cosmological creed which comprises origins not only of religion, including aspects persisting in historical religions, but also of primitive science, especially beginnings of astronomy. Nor has the antiquity of these intellectual efforts been sufficiently appreciated, for the ideas were already old when the most ancient of the archeologically known monuments embodying such elements were erected, and these monuments were, correspondingly, well along in the evolution of the architectural expression of the ideas.

Artificially elevated ceremonial structures are known first in the mountain-temples or ziggurats of Sumer and Akkad, a type established prior to 3000 B.C. These imitation mountains, usually with a ramp or stair at each cardinal compass point and a small shrine on the peak, commemorated in the first instance the Sumerian cosmogonic figure, *Kur* ("Mountain"), which emerged at the dawn of the universe out of the generative primal waters, *Nammu*.² *Kur* became Mother of the Gods, likewise All-Creator, and source of Abundance (*Hegal*).³ This is the image of a people whose crops depended on mountain-derived irrigation, as does most farming in Iran today, and the clearest account of the sky-mountain whence flow all waters survives in Mazdean texts,⁴ some of which can by internal evidence be attributed to cultures flourishing on the Plateau long before the arrival of the Aryan-speaking nomads responsible for our designation "Iran." That the Sumerians had come into the Tigris-Euphrates Valley from a mountainous region to the east has been repeatedly argued and derivation specifically from the Iranian area has been effectively defended.⁵

Kur becomes involved in conflicts with her descendants and is finally conquered by *Ninurta*, Lord of the Storm, representing an enlarged Orion-constellation.⁶ He thereupon cuts her across horizontally and pushes the peak up into the upper sky while *Enlil*, his father and also a storm-god (Lord of the Wind), shoves down the base to make the foundation of the earth. This episode provides the cosmological identification of the sky-mountain, white with snow that will melt and fall as rain to promote "abundance." The same fate of being severed in twain and being divided betwixt heaven and earth befalls, in the subsequent, Akkadian cosmogony, *Tiamat*, who is likewise related to the primeval deep (*Apsu*), and who also is first goddess and Mother of the Gods.⁷ "*Tiamat*" means not only "sea," but also "Milky Way";⁸ and again, *Tiamat* was also "Mother Huber," "Mother River." The sky-river widely was recognised as

the source of rain, for example in an Egyptian text which comments, rather patronisingly, on how fortunate it is for foreign peoples who do not have a Nile to water their crops that there is a Nile in the heavens to send down rain.⁹ Similarly, even today in India the Milky Way is identified with the most sacred river, the Ganges.

The bisection of Kur released a devastating flood (the heavens may deliver disaster as well as benevolence), which Ninurta checked by building a cairn.¹⁰ The cairn was thus in original conception an artificial reproduction of the sky-mountain, and as such has power to ward off evil. This pre-architectural cultic monument with its wide diffusion and long history—cairns are still a feature in Mongolia and Tibet—thus began as a primitive factor in this system of cosmogonic symbolism.

The cairn is typically a megalithic monument and the megalithic cult is generally assigned to the Neolithic period. This myth, however, must have originated at the dawn of neolithic culture, for in the Sumerian version both the primal body of water and the mountain that it generates are females who procreate without males. When, in the course of the early Neolithic period, herd-economy developed, the necessity of renewing stock evoked a realisation of the relation between coitus and reproduction, apparently—judging from a wide variety of cultural evidence—for the first time. The myth is not pre-neolithic because a mountain could be a source of abundance only in a garden culture (or very much later in metallurgical cultures). A dating at the very beginning of neolithic developments (*ante* 6000 B.C.) is consistent with the fact that the cairn is the most rudimentary of the megalithic monuments, a mere conical heap of stones.

At three or four decisive points cosmologically symbolic monuments are connected with the megalithic culture, and that culture has left us the earliest remains of what might be called—somewhat awkwardly—a pre-architectural use of the architect's greatest medium, stone.

The earliest zigurrat remains thus far uncovered, at Uruk (Warka, Erech), are datable about the third quarter of the fourth millennium, but temples of the preceding ("Al Ubaid") period had been erected on platforms,¹¹ and the Uruk zigurrat was on such an ambitious scale—forty feet high and covering approximately 420,000 square feet—it seems almost certain there must have been a considerable series of predecessors. It was a stepped pyramid and this geometric stylisation of the mountain form remained standard for a long succession of West Asian mountain temples down into the Assyrian period (c. 700 B.C.).

Atop the Uruk zigurrat was a small temple dedicated to the god Anu, who was descended in the third generation from Tiamat, i.e., represents a relatively developed stage of the cosmological cult. He was the personation of the polar star¹² when that was in Ursa Maior (c. 4000 B.C.), and as polar star was at the peak of the heavens (*An* means

"above"), hence his temple belonged atop the sky-mountain. Other temples in Uruk, near by and of the same period, were set only on platforms a few metres high and it has been suggested that these platforms were "an abbreviated rendering of the zigurrat."¹³ Perhaps the height of the emplacement depended on the astral identification of the divinity worshipped in the temple set thereon.

However that may be, the platform as foundation for sacred buildings survived much longer than the complete imitation mountain. The most famous example is at the great Achaemenid ruins in south Iran which we call "Persepolis."¹⁴ The Achaemenids, according to Herodotus (I,131), took advantage of the local topography and instead of laboriously constructing artificial mountains, made their offerings to the gods on the peaks of actual mountains. But for the royal ritual city they had built a vast platform and on this, smaller platforms on which to set certain of the buildings, all, both large and small, being reached by ceremonial stairs which are a major feature both ritually and architecturally.

The temple of the Great God at Musasir¹⁵ in Urartu (Armenia) in the early first millennium B.C., which is a direct antecedent of the major Greek temple style, also stood on a platform, but this was integrated into the construction as a high basement. The high basement or the podium recurs in the ceremonial architecture of Greece, especially in funerary monuments. In Rome the high base-course or podium was a feature in various categories of monumental architecture, with a wide variety of interpretations; and such Roman designs, with a full story or more of foundation-course, the entrance above approached by wide stairs (for example, the *Maison Carrée* of Nîmes), have been echoed in great buildings of the European classical tradition of the last 250 years, such as the *Madeleine* in Paris and the National Gallery in Washington. Appreciation of the original symbolic significance persisted at least through the Greek period and probably also in Rome. Today, complaints against such non-utilitarian magnificence are loudly sounded by those whose legs have been weakened by elevators, and who are ignorant of the cumulative significance of the form and psychologically impervious to the majestic.

The Sumer-Akkadian cosmogonic myth travelled to the Nile Valley, as the late Sir Flinders Petrie pointed out a quarter of a century ago,¹⁶ suggesting Elam as the immediate point of its departure. Established there, according to outstanding Egyptologists of our generation,¹⁷ c. 3400–3000 B.C., it remained the center of a cult that was still powerful some 4000 years afterwards, at least as late as the fifth or sixth century A.D.¹⁸

In the version of the Sumer-Akkadian cosmogony adopted in Egypt, out of the primeval waters, Nun, rose the Primeval Hill. Egypt had no great mountains, and the visual image was also greatly modified by the all-important event

of the fertile silt reappearing out of the annual Nile inundation; so the Primeval Hill was alternatively called "The Risen Land." As a cosmogonic analogy to the actual landscape, it emerged out of the cosmic Nile which the divine Power had put in the sky to supply rain to those lesser peoples to whom no terrestrial Nile had been vouchsafed, i.e., out of the Milky Way. This, in turn, rested upon the primeval dark waters, and the Power of all three—Nun, the celestial Nile and the Primeval Hill—was inherent in one personating divinity, a god called, according to the center of worship, Ptah or Khepri or Atum.¹⁹

The Primeval Hill of Ptah, whose cult center was the city that the Greeks called "Memphis," was—as several noted specialists have recently stressed²⁰—the model for the royal pyramid tombs, correcting a previous guess that these monuments were "solar." In the choice of the pyramid form for the all-important royal grave, thinking by analogy was again operative: since (by hypothesis) the all-creative Power was inherent in a hill, then the re-creative Power necessary to assure the king immortality would be evoked by placing his body in a simulacrum of that hill, just as Ptah himself was "in" the original cosmic hill.

There was, moreover, a second, supporting motive (not hitherto remarked) for symbolically identifying the dead king with Ptah in order to secure his immortality. Ptah, the god to whom the dead king was, in the Pyramid period, assimilated (later it was, of course, Osiris) was both giant and dwarf, according to Egyptian texts.²¹ The cosmological identification of the giant we already know, since the Primeval Hill equals Kur: the giant Ptah personated the Milky Way. The dwarf Ptah is identified by other texts as a star (or alternatively, pair of stars) in the circumpolar circle; and in the Old Kingdom cult, at least, the king's immortality depended on his becoming identified with one of the circumpolar stars, "eternal" in that, at that latitude, they never disappear below the horizon.

The pyramids were, like the ziggurats, oriented to the cardinal points as accurately as possible with the means then available, and the main entrance, in most cases the only entrance, was on the north side,²² thus focussing on the circumpolar region of the sky. In some pyramids there seems to have been a special effort to focus it on the center of that area, which would orient it towards Ptah-the-star.

So potent religiously was the pyramid form in Egypt that it was also used to surmount the great square stone pillars which, in pairs, flanked temple entrances. Such non-structural columns, marking the East and West,²³ the equinoctial sun-rising and setting points, were usual likewise in West Asia, and were another corollary of the cosmological calendrical system that was first concentrated on the concept of the sky-mountain. The most famous Asian examples are the columns called "Boaz" ("Strength") and "Jachin" ("Establisher") before the entrance of the Phoenician-built Temple of Solomon. According to some formulations

of the basic cosmology, the equinoctial points might be marked by smaller mountains, making, with the central sky-peak, a triadic chain. The Egyptian priestly architectural designers put the hill on the column and so created the form that we call "obelisk."²⁴ It was also recognised as phallic (Ptah-Khepri-Atum was a phallic personation who created onanistically), and nearly two millennia later in far off China appear, on the rims of ritual bronze vessels, pairs of pyramid-capped posts, which Dr. Bernard Karlgren has long since identified as phallic there, also.²⁵

The expensively built stone pyramids of Egypt, many of them huge, were not equalled elsewhere; but burial tumuli, more or less pyramidal in form, or simply conical, still survive in considerable numbers, scattered from the Mediterranean into China, and equally dispersed in date, from the third millennium B.C. down into the T'ang period. Outstanding in China is the great pyramid in Shensi,²⁶ probably of the Han period, constructed of pisé surfaced with stone and some 500 to 600 feet high. This, too, is accurately oriented to the cardinal points but there each of the four directions is marked by a center gate giving access to the surrounding precincts. In China, Ursa Maior as (quondam) locus of the polar star remained the "residence" of the great god, in the person of Shang Ti, and his power was radiated to all the Four Quarters, albeit with a variant quality in each.

In India the cosmological mountain, in more or less accurate pyramidal form, dictated the design, not just of temple bases or of mortuary structures, but of great temples, and the concept with full symbolic intent persisted down into modern times (roughly speaking, our Middle Ages).²⁷ From India the idea moved into Southeast Asia where—notably in Cambodia—the symbolism was faithfully preserved, the Mountain Temple often rising out of surrounding waters. The idea also migrated to pre-Columbian Mexican and Central American cultures where it was expressed with locally evolved techniques and variations. In India and Southeast Asia this temple form is definitely identified with cosmic mountains, chiefly Meru; and in no other culture, except the Egyptian, have records been found so clearly and fully setting forth the myth and its architectural parallels.

The pyramid seems also, on occasion, to have been a roof element in Egypt,²⁸ and the pyramidal roof recurred in Phoenician mortuary architecture, at least, notably on one of the Amrit tombs,²⁹ which seems to be a summary replica of a pyramid-roofed square shrine, atop a high podium, resting on a two-stepped platform. In Greek mortuary architecture the pyramid roof appears truncated and here, too, it is associated with a high podium and stepped platform base, for example, on the so-called lion-tomb.³⁰ This, on its original site at Cnidos, was accurately oriented to the cardinal points, and the base plan was designed on a radiating disk, founded on a cardinal-points cross, with a

total of twelve radiations, suggesting a transition from the early astral to the late solar cosmology. The Mausoleum⁸¹ also had a truncated pyramid roof and high podium.

Thus the cosmic mountain, evolved by unreflective creative imagination as an instrument to preserve and promote life fully 8000 years ago, has guided architectural design, now in one way, now another, from end to end of the earth and down virtually to the present.

Of all these symbolically motivated forms the ridged roof with end gables or pediments would seem to be the most "natural," a virtually inevitable development of wooden roofing in an area of high precipitation, especially one with heavy snowfall. But the late Ernst Herzfeld authoritatively established its original symbolic value. Discussing the representation of conquered Urartu towns on Assyrian stones,

he emphasized "the contrast between the profane buildings (all with flat roofs) and the sacred one with a gable: the same distinction prevailed in Greece and Rome until the time when the deified Caesar was honoured by the Senate by having a gable put on his house. The only monumental example of a gable in Iran is the tomb of Cyrus."⁸² This tomb also incorporates the residual symbolic element of a high podium.

The same story spreads and continues: in dome, and other roofing forms; in ground plans of temples, churches, mosques; in treatments of entrances and fenestration; in decorative layouts, as well as specific ornamental themes. But each of these branches of architectural history, though they stem from a common root of early cosmology, is a separate, rich story in itself. THE ASIA INSTITUTE

1. A. Moret, *The Nile and Egyptian Civilization* (London, 1927), p. 415.

2. S. N. Kramer, *Sumerian Mythology* (Philadelphia, 1944), pp. 38-40.

3. *Ibid.*, p. 62. In one context Kur is second-created, emerging out of Nammu, the Water-of-Creation; in this other mythic fragment the name Hegal is second-created, emerging out of the Water-of-Creation; in primitive mythology (and symbolism) two things equalling the same thing (here "second-created") characteristically equal one another. Thus Hegal is a name (describing the major function) of Kur.

4. *Bundahish*, XVIII, 10: E. W. West (trans.), *S.B.E.*, V, 67; and see n. 3 and XII, 6 (pp. 35-6), where it is called the Ausindon Mountain, and n. 8, identifying this as the Hindvad Mountain of Tishtar Yast, 32.

5. H. Frankfort, *The Birth of Civilization in the Near East* (Bloomington, 1951), pp. 45-48.

6. S. H. Langdon, *Semitic Mythology (Mythology of All Races, V)* (Boston, 1931), p. 135.

7. *Enuma Elish* . . . I-IV: A. Heidel (trans.), *The Babylonian Genesis* (Chicago, 1942), pp. 8-32.

8. Langdon, *op. cit.*, p. 317.

9. J. A. Wilson, *Egypt—The Nature of the Universe*, in H. Frankfort et al., *Before Philosophy* (Pelican Books, A 198 [Harmondsworth, 1947]), p. 46.

10. Kramer, *op. cit.*, pp. 180-181.

11. Frankfort, *Birth of Civilization*, pp. 47, 53-55. In this instance the corners are oriented to the cardinal points, hence the stairs are oriented, approximately, to the solstitial sun-rising and setting points.

12. Langdon, *op. cit.*, p. 94.

13. Frankfort, *op. cit.*, p. 53.

14. For a systematic summary description see: A. U. Pope (ed.), *A Survey of Persian Art* (Oxford, 1939), I, 312-319. The main orientation here is (slightly inaccurately) to the diagonal points.

15. E. Herzfeld, *Archaeological History of Iran* (London, 1935), p. 16.

16. W. M. F. Petrie, *Religious Life in Ancient Egypt* (London, 1932), p. 88.

17. Frankfort, *Kingship and the Gods* (Chicago, 1948), pp. 24-5; also, p. 352, n. 1. Likewise, W. Max Müller, *Egyptian Mythology* (London, s.d.), p. 145.

18. Ptah and his immediate family are represented on tapestry-woven trimmings from burial garments found in Egyptian graves and datable stylistically from the fourth, to the sixth centuries. For a characteristic example which includes Ptah-Khepri in the well-defined form of dwarf twins, one carried on the other's shoulders, see: O. Wulf-W. F. Volbach, *Spätantike Koptische Stoffe* (Berlin, 1926), p. 26, No. 4658, and Pl. 53 (the illustration printed inverted).

19. The name "Ptah" has been inexplicable to Egyptologists, yet when a Semitic origin which would make it mean "The Opener" was suggested some years ago (H. Kees, *Der Götterglaube im alten Ägypten*, [Mitteilungen der Vorderasiatisch-ägyptischen Gesellschaft, XLV, Leipzig, 1941], p. 173, n. 3), the idea was brusquely rejected (L. Spence, *Myths and Legends—Ancient Egypt* [Boston, s. d.], p. 144).

At the same time one of the Canaanite (Ugaritic) texts found at Ras Shamra gives the same interpretation (T. Gaster, *Thespis* [New York, 1950], p. 156); yet the interpretation is still rejected, despite the fact that Petrie's thesis (n. 16) makes a Semitic provenance reasonable. Moreover, the Mandaean, who speak a variant of Babylonian and profess a religion founded on this same cosmogony, have a god named Ptahil who rises out of the dark waters and also is a demiurge: v., e.g., W. Brandt, *Mandaeanism*, in J. Hastings, *Encyclopedia of Religion and Ethics* (Edinburgh, 1915), VIII, 382.

20. Frankfort, *Kingship*, p. 153; Wilson, *op. cit.*, p. 60. The close connection between Ptah and the pyramid tombs accords with the fact that the latter are all in the vicinity of Memphis, the center of Ptah worship: I. E. S. Edwards, *The Pyramids of Egypt* (Pelican Books, A 168 [Harmondsworth, 1947]), pp. 16, 17 (map).

21. Müller, *op. cit.*, p. 222. The hymn is late, but there is strong internal evidence indicating that the idea was an original part of the concept of both Ptah and his alter ego, Khepri: *ibid.*, p. 71.

22. Edwards, *op. cit.*, pp. 69, 87, 88, 117, and 49, 69, 76, 82, 127, *et passim*.

23. Müller, *op. cit.*, pp. 30-31.

24. The pyramidion atop the obelisk derives directly from the cult of Atum, another equivalent of Ptah, who created the Primeval Hill by ejecting a drop of semen which petrified: Frankfort, *op. cit.*, pp. 153-4.

25. In the *B.M.F.E.A.*, 1944-45. The present writer had independently published this same interpretation: *Ritual Bronzes of Ancient China* (New York, 1945), p. 100.

26. A. G. Wenley, "Some Shensi Monuments," *The Chinese Social and Political Science Review*, Vol. 8, No. 4 (Oct. 1924), pp. 106-115.

27. E. B. Havell, *The Ancient and Mediaeval Architecture of India* (London, 1915), p. 194, with many relevant illustrations scattered through the book.

28. V., e.g., H. Schäfer, *Die Kunst Ägyptens* (Berlin, 1925), p. 264.

29. G. Perrot and C. Chipiez, *History of Art in Phoenicia* (London, 1885), I, 157.

30. V., e.g., Sir Banister Fletcher, *A History of Architecture* (London, 1931), p. 120.

31. *Ibid.*, p. 119.

32. V. n. 15.

ARCHITECTURE TO PAINTING IN THE MIDDLE AGES

PAUL M. LAPORTE

1

MEDIEVAL church building developed as a result of a specific combination of technical knowledge, ritual requirements, and sociological conditions. The consecutive changes involved in this development seem to have transformed the prevalent habits of perceiving space in a specifically patterned form, consequently influencing the development of painting in a most profound manner.

The early Romanesque church is predominantly an abbey church in a rural area. It was built mainly for the performance of religious services by the clergy, with little concern for a large congregation. Since an important part of the ritual is of a processional nature, there is a strong emphasis on the longitudinal axis of the nave leading toward the high altar. A correlative axis is introduced by the transept, distinguishing the processional character of the Christian church from that of the Egyptian temple. Whether or not the idea of the nave-transept configuration is derived from the early desire to give the plan of the church the symbolic shape of the cross, the lines of the Roman cross have become a basic means of organizing space in Western civilization. In modified and extended form it is even present in Descartes' system of co-ordinates.

In Romanesque church building, the quality of movement present in these directional axes of the cross—a quality often termed *dynamic*—is in conflict with the static qualities of general structure and concept. The shell of the Romanesque architectural structure is conceived in terms of a plane-wall-and-roof construction; the void is conceived as a series of box-shaped finite volumes, interdependent with the shell. The box-shaped parts of the interior necessitate a plane-wall-and-roof construction for their definition; that is, such a structure can hardly define anything other than a box-shaped void. The resulting structural and spatial articulation therefore combines finite space blocks in a more or less additive fashion.

However, the immanent dynamism of the movement to be found in the two main axes, together with an increasing

compulsion to stretch in height and depth, conflicted with the static elements of the Romanesque building. It was this conflict which compelled the builders of the period to develop new structural concepts.

The first step in this development is a more dynamic interpretation of the plane wall, as instanced by the slight protrusions in common use by at least the eleventh century. These blind arcades—scarcely engaged columns, actually—may not have seemed, at first, to be more than a decorative elaboration of the plane wall. But they articulated the wall and gave rhythmic unity to the sequence of windows which were originally cut into the wall with little consideration for "structure." It is only in the light of later developments that one recognizes the structural potentialities of this innovation, for the later dissolution of the plane wall into structural elements, as well as its strengthened vertical articulation, would have been impossible without it.

The spiritual heritage of the North is one of movement and structure, while that of the South is of a static and geometric character. The friction resulting from the opposition of these essentially differing attitudes is possibly the most important single factor in producing the subsequent great architectural ideas of the Western world. From it springs the general dynamization of space in the Gothic, manifest in the dissolution of the carrying plane wall, as well as its transformation into a number of new elements—the buttresses, piers, ogival vaults and ribs. The coordination of relatively isolated and independent spatial constituents was achieved in the Romanesque by simply adding the elements one to another, but in the Gothic this gives way to a structurally unified space. Windows cut from the plane wall give way to glazed screens stretched between structural parts of the building. The fundamentally post-and-lintel approach of carrying members with the load put on top of them (as practiced in the Romanesque) gives way to the new structural unity. An interdependence of vertical thrust and horizontal cover is achieved by both the pointed arch and the rib vault construction of the Gothic.

In the late medieval city-state, the rural and feudal abbey church was replaced by the urban and proto-democratic cathedral which must serve a large congregation with a strong sense of being a unified community. The unity of

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space is no longer additive, as in the Romanesque, but cumulative. In the Romanesque, relatively independent space units are strung along the two axes of the building, while in the Gothic, the space compartments are unified into one large single space by the interdependence of the structural parts.

Nothing demonstrates this change more graphically than the contraction of the transept into the plan of the building. The transept is then no longer an opposing direction in the building but rather a modification of the general rhythmic flow of space, and it is more prominent in the vertical than in the horizontal articulation of the structure.

2

The history of medieval painting before the turn of the first millennium is highly complex. But at least three major traditions may be distinguished in this period: Graeco-Roman illusionism, the geometric Byzantine style, and the pre-Christian Nordic ornament with its strongly dynamic structure. When these distinct traditions came to bear upon each other clearly contradictory trends were created.

By the eleventh century these traditions have been, for the most part, amalgamated into one recognizable style. The Graeco-Roman illusionism has been absorbed into a new two-dimensionality; remnants of an originally three-dimensional style of painting are pressed into two dimensions like a plant in a herbarium. Byzantine geometry developed directly into the specific geometrical emphasis of the Romanesque, an expressive linear arrangement. And of the pre-Christian Nordic tradition, it may be said that it went underground, to reappear again in Gothic architecture as well as in the completely new garb of the spatial structure in thirteenth and fifteenth century painting.

The varied uses made of architectural motifs by eleventh and twelfth century miniature painting are well known. Many of these pictures are framed by a series of arcades or by two columns with an arch on top. However, this architectural device of painting is not merely setting off a "scene" from the surrounding space, nor is it usually an element to be understood entirely on the same level of reality as that of the figures surrounded by it. Rather, it is an underlining of "irreality" of the figures. While this architectural frame of the early miniatures gives geometric emphasis to the edges of the picture, it is itself also an integral part of the geometric organization of the space taken up by the image as a whole. By insisting on the basic post-and-lintel character of the "frame," this arrangement impresses its character upon the over-all organization of the picture. The figures within are only additive variations on the theme of a plane interpreted in terms of the post-and-arch structure.

The thirteenth century brings little basic change, except that there is a more pronounced, though by no means com-

plete, division between "frame" and picture. The frame often takes up Gothic architectural motifs which are rendered like an architect's working drawing, an elevation. The rigidity of this design creates a new independence and objectivity for the frame, which is in contrast to the increasingly dynamic, interweaving movement in the scene proper. This movement reintroduces, now on the representational level, the intricate structural movements of the pre-Christian Nordic ornament.

3

The introduction of structural dynamics in painting is, of course, analogous to the change from Romanesque geometry to Gothic structure in the field of architecture. Moreover, organic and dynamic shapes are multiplied as decorative details in Gothic architecture itself. But these details are no longer confined to definite parts of the building, as in the Romanesque. They are instead growing over and out of every part, held in check only by the basic structure, thus establishing another aspect of Gothic spatial unity.

Gothic figure sculpture, on the other hand, finds itself rather early (approximately by the middle of the thirteenth century) in a process of emancipation from architecture. This process is paralleled in painting by the change in the relationship between "picture" and "frame." Just as the sculpture asserts an ever-increasing independence from the architecture, the "scene" of the picture becomes more and more independent of the frame, until, finally, the frame becomes entirely a function of the picture, losing first its dominant and then its integral place in the composition.

The development of painting from the early middle ages to the fifteenth century is, therefore, one of increasing emancipation from architectural concepts. It involves also a gradual creation of conceptions proper to painting in its own right. To the degree to which both sculpture and painting discover laws pertaining to them as such, they become more and more specialized, finally losing their original coherence with architecture. Hence they have to invent principles of unity and wholeness which are no longer directly connected with the structural principles of the mother art.

4

In painting, two very important changes occur at the beginning of the fourteenth century: the ornamental frame disappears more or less completely, and at the same time the previously architectural frame moves *into* the picture. In earlier painting, architecture appeared within the scene only when absolutely needed for the story and even then only as a prop; now the attempt is to make it an integral part of an increasingly unified *pictorial* space. Considering the important role of the representation of architecture in

the painting of this period, we may conclude that architecture was one of the most important sources of the development of the unified pictorial space in painting. This is also borne out by the fact that Western linear perspective developed first in pictorial renderings of architecture as subject matter.

The "geometric" approach in painting uses space in terms of shapes added to each other. The relationships between these shapes are conditioned entirely by the effect they have upon each other and upon the whole. This is what might be called a highly objective approach since the effect upon the observer is wholly a function of the actual configuration.

The "structural" approach in painting uses space in terms of directional movements which affect each other in a much more direct and dynamic fashion than do geometric shapes. As in the case of pre-Christian Nordic ornament, and again in some thirteenth-century miniatures, this is also an objective approach because the final configuration is a function of the cumulative effect of the single movements of structural lines. But while the geometric approach presumes a contemplative attitude on the part of the spectator, the structural approach presumes a more active participation on his part, and in this approach the movements of the eye are not merely a technical necessity but contribute directly to the esthetic significance. That is, such Gothic configurations create a more clearly kinesthetic experience.

From the historical point of view, this increased subjective participation is probably the first step in the growing subjectivity of art which leads directly from the thirteenth century to our own time. The next step in this development is of a twofold nature: while painting up to the beginning of the fourteenth century was a definite affirmation of the plane, the ensuing period introduced the illusion of three-dimensionality. The structure of the picture therefore becomes, in varying degree, a function of the observer; that is, its structure is conditioned by the effect it is to exercise upon the observer. Three-dimensionality in painting is a purely psychological effect—it is not an objective fact. This is true not only of the illusion of volume but also of the linear structure—perspective—which is conditioned by what might be called an "imitation" of a mode of perception. The reference of the picture to the observer is thus well established and its subjective character is built directly into the picture.

5

The sharpest distinction between Romanesque and Gothic architecture is in the fact that the Romanesque operates with finite space blocks, while the Gothic endows an indefinite spatial area with a definite structural pattern. The Romanesque exterior is, in many respects, a function of the interior. With its well defined planes it affirms the

finiteness of the interior space. The Gothic exterior, however, is a function of the unity of all space. It does not set any definite limit to the interior but creates a flow of space between the interior and the exterior. The definite structure and pattern of this space is essentially dynamic: it emphasizes the directions of "up and down," "across," and "into," implying distinct movements thereby. As noted before, the geometric symbol of this structure is the cross, or rather its three-dimensional extension, Descartes' system of co-ordinates.

The pre-classic formulation of perspective is exemplified by Flemish painting of the fifteenth century. It is developed directly from the structural dynamics created by Gothic architecture. Perspective, at this time, is not nearly as rigid and static as a later systematization would have it. The construction of this perspective can be arrived at, first of all, by merely looking up and down along a vertical axis. This view has its parallel in the elongated height of the Gothic cathedral. Secondly, a horizontal eye movement is necessary which may be identified with the horizon of perspective. This is paralleled in architecture by the axis of the transept as well as by the secondary axes provided by the perpendicular connections between the central and the side bays of nave and aisles. Thirdly, the glance into depth and distance is symbolized in perspective by the vanishing point, just as it is in Gothic architecture by the elongated direction toward the high altar.

The comparison between any photograph of a Gothic church interior and a Flemish painting of the first half of the fifteenth century representing such an interior, reveals that the painting represents a far larger visual field than the photograph (even if taken with a wide-angle lens). A very strong foreshortening in the painting gives the impression that the observer stands very close to the foreground. The eye level is taken high so that one is looking down on a large portion of the subject matter, while he is still looking up to the smaller portion. In many instances the vertical center of the painting is emphasized so that the left and right side verticals appear only as secondary elements. The vertical axis of vision in the painting is reversed from the "normal" situation in the church interior because the horizontal axis of vision is taken at a very high level, while the spectator, standing on the floor of the nave, has a low-level view. The division of the picture plane into a center and two side areas, however, is a configuration very close to the nave-aisle arrangement of Gothic architecture.

6

Up to the beginning of the fourteenth century the organization of the picture is based on an "at once" apprehension which is essentially conceptual. The fourteenth century leaves this conceptual structure intact, but adds as many

perceptual observations of details as this basic structure allows. Visual observations of the *appearance* of nature remain secondary. The idea of a unified and yet non-finite space, already expressed in the Gothic architecture of the thirteenth century, became prominent only in the painting of the fifteenth century. Priority of perception is now of the essence. The empirical process of perception, on the other hand, is so complex that if it is to be patterned and structured, as it must, it assumes, in turn, a conceptual character. The pattern of perception, then, is supplied by the process of scanning along the three major axes of "up-and-down," "across," and "into" as suggested by the spatial experience of Gothic architecture. It is rationalized only in the seventeenth century, by Descartes.

A distinction must here be made between this assumed pattern of perception and its reflection in the configuration of the picture. Just as the eye at this time of history begins to act as a mirror of the external world, so the picture reflects the sequence of experience in reversed order. In painting, space is represented as if the observer had looked *down* upon a large portion of it, but in the picture this creates the impression of space moving *up* and *into* the depth. The horizontal axis of perceptive scanning appears as the horizon-line of perspective structure, thus contributing to the impression of depth. The proportion between the part beneath and the part above the horizon-line is similar to the long lower and the short upper arm of the Roman cross. This proportion is not suggested by the nave of the Gothic church as it appears to "normal" observation from the floor, but by the proportion between the vertical piers and the height of the area of the ogival vault. *The dynamic structure of scanning is therefore in part derived from the actual proportion of the architecture.*

Painting in the fourteenth and fifteenth centuries, just like the architecture of the thirteenth century, strives to create a non-finite, unified space. Such unity of space is not achieved in geometric fashion as in earlier painting, but by the transfer of the basic structure of the Gothic cathedral to a mode of perception which in turn conditions the increasingly subject-related (i.e., spectator-related) structure of the painting. In other words, *the actual structural configuration of Gothic architecture has become the conceptual background for the apprehension and perception of space in later painting.*

The symbolic significance of this change may be related to a certain change in the ritual which took place during the Middle Ages. When the Roman Mass was first standardized in the early part of the "Dark Ages," it was performed by the priest standing behind the altar and facing the congregation. In this, the so-called basilical posture, the priest was considered as the "church incarnate," that is, as representing the divine power in the flesh. But some time in the Middle Ages, even though it seems never to have

been codified, the basilical posture was changed into the eastward position where the priest faces the altar along with the congregation. With this change the priest has become the minister of the congregation and the divine power has become more removed from man, more immaterial and spiritual, never to be touched. This change is paralleled by the development from the finite space of the Romanesque to the non-finite space of Gothic architecture, as also by the development from the flat gold background of the early Middle Ages (which lasted through most of the fourteenth century and even longer) to the illusion of depth which began in the early fifteenth century. The background of the picture is now removed from the observer and space has gained a new dimension.

7

The whole change from *architectural* actuality of space to a *pictorially symbolic* space is an extremely interesting instance of a concept-percept development which may be called "dialectic." The mature Gothic architecture of the thirteenth century has created a structure which organizes actual space in a very specific fashion. The Gothic space has impressed itself upon the people of the time in such a way that their very perceptions were patterned by it. Whether one says that the actuality of the architecture changed their concepts about space and then directed and channelled their perceptions in a quite distinct manner, or whether one says that the architecture impressed a new habit of perceiving upon them, to be conceptualized only later, the fact is that the design (interpretation of space) existed first in the actuality of the architecture, and was only later transferred to the more habitual and immaterial process of perception.

The transfer from ritual actuality to symbolic and abstract representation is a recurrent one in history. A good example of this is provided by the Old Stone Age, where ritual shooting at the depicted animal long preceded the representation of the hunter shooting at the animal. Another example is that of the representation, in painting, of the Holy Communion, which probably did not occur before the fifteenth century though the Last Supper was a common subject in medieval painting long before that time. Evidently man must actually play out his experiences before he can conceptualize them. Gothic architecture is such an actuality which has become internal and conceptual in the painting of the fourteenth and particularly of the fifteenth century. The time-lag of one hundred years or more between the mature formulations of space in Gothic architecture and the corresponding space structure in painting can be understood as the consequence of such a process. The rationalization of the concept in Descartes' system of co-ordinates occurred *post facto*.

MACALESTER COLLEGE

THE NEUMANN BICENTENNIAL

JOHN COOLIDGE

NINETEEN hundred and fifty-three is the two hundredth anniversary of Balthasar Neumann's death. The last of the great court architects, he probably had a larger practice than any European builder of the eighteenth century; certainly he was its most interesting designer. He might be called the Tiepolo if not the Bach of architecture. At least three books have appeared in his honor this year, and a definitive exhibition of his drawings has been held in the Residenz at Wuerzburg.

Yet Neumann remains less widely known than any other major European artist. A short entry in the *Enciclopedia Italiana*, a couple of sentences in Sitwell, five masterly pages in Pevsner's *Outline*, these are virtually the only non-German references to him or his work. Even a hasty survey of his life, even a brief review of these latest tributes is justified therefore by the unfamiliarity as well as the importance of his achievements.

Balthasar Neumann was born in 1687 at Eger in Bohemia and it was here he served his apprenticeship in a bell foundry. At twenty four he emigrated to Wuerzburg where he soon joined the Franconian artillery. He is first mentioned in documents when he repaired a fountain, and some years later he is known as a cartographer. Shortly thereafter he was employed by the gifted and building-mad Schoenborn family. For them he planned palaces, country houses and churches; through them he came to the attention of many of the princes of the Holy Roman Empire. At one time or another he worked for the abbots of Muensterschwarzach, Langheim and Neresheim, the prince bishops of Speyer, Bamberg, Constance, Worms, and Wuerzburg, the Jesuit order, the Margrave of Baden-Durlach, the Duke of Wuerttemberg and the electors of Trier, Cologne and the Palatinate. Even Maria Theresa asked him for plans to remodel the Hofburg and sent him a golden snuff box for his pains. By 1740 there was hardly a major building under consideration in all of western and central Germany with which he was not concerned. He also designed fortifications and farmhouses, fireworks and waterworks, bridges and altarpieces, practiced city planning, ran a glass factory, and taught architecture at the University of Wuerzburg.

In 1750 Tiepolo came to decorate the principal rooms of Neumann's largest building, the episcopal palace at

JOHN COOLIDGE, Director of the Fogg Art Museum, returns to his original interest, architecture, in this case baroque.

Wuerzburg. On the rim of the ceiling fresco at the head of the stairs, he portrayed the architect. There he lies, sprawled across a cannon, a big dog sniffing familiarly at his armpit—the very image of parvenu vulgarity. Popping eyes, bulging cheeks, a gross succession of chins, call attention to a balloon of a head, a balloon inflated by the architect's all-too-apparent ego. A man of decision, certainly; also a man inordinately proud of his colonel's uniform. His designs suggest a quite different character, above all a remarkable intellect. Unapproached as an engineer, Neumann applied to architecture the most advanced mathematics of his day. A daring innovator he was also a relentless perfectionist. As commission followed commission, as project succeeded project, he gradually defined the extreme possibilities of his ideas and achieved an ultimate elegance in their expression. Can Tiepolo's coarse, blustering figure be a portrait? Or is it a skillful caricature?

Neumann's buildings are no less contradictory than these records of his personality. The aggressively handsome façades are conventional and sometimes insensitive. By contrast the state apartments of his palaces and the interiors of his churches must be ranked among the very greatest achievements of European architecture. They complete the tradition of spatial composition which Borromini and Guarini founded, which Hildebrandt and the Dientzenhofers had developed. At the same time they display an elegance of proportion and a cool precision in handling the traditional architectural vocabulary that Neumann learned by emulating de Cotte and Boffrand.

But the quality of these masterpieces cannot be suggested by any pedantic definition of their historical position. Bruehl and formerly Bruchsal, Vierzehnheiligen and Neresheim are not spatial compositions in any familiar sense; rather they are romantic interior landscapes. Travelling in the mountains the principal features of any view remain constant, but the effect changes astonishingly as one winds through a valley. Similar transformations evolve before the visitor to one of Neumann's last great churches. He enters a dim space beneath the curving organ loft. The basilica stretches before him, a long aisle defined by an irregular series of supports and crowned by a sequence of saucer domes. As he emerges into the brightness of the nave the arcades swing outwards and the vault leaps upwards. Now the church is a cluster of semi-independent units, one huge baldachino succeeding another. At the

transepts the whole has become a central building. Walls and vaults billow like spinnakers outwards and upwards on every side. Great altars, conglomerations of pink mock marble, white stucco and gold leaf ring the crossing space. Even the organ, so many steps behind, now by a curious trick of perspective looms surprisingly close.¹

These outstanding achievements are not the only reason to study Neumann. Hundreds of his letters and at least a thousand of his drawings survived until our own day.

be the authoritative life. But his too-brief survey contains no plans, no sections, no drawings, no footnotes and no bibliography. Walter Hege's photographs with which it is illustrated are generally excellent, and several, such as the interiors of the Kapellen and one magic view of the stair hall at Wuerzburg are surely the definitive visual interpretations for our time. But more informative photographs are available of some monuments and Hege like every one else so far has failed to convey the character of the great



FIG. 1. Portrait of Balthasar Neumann by G. B. Tiepolo, ceiling fresco, Episcopal Palace, Wuerzburg. (Walter Hege)

Although about a quarter of this total was burned up during the war, what remains is vast in its scope and completeness. The very mass of available documentation has delayed the appearance of a comprehensive biography. Yet the books and exhibition of 1953 not only contributed towards the solution of specific problems, they also made possible some estimate of what still remains to be done.

Richard Teufel's delightful essay on Neumann's buildings in upper Franconia² is valuable for analyses of the human problems which generated the individual monuments and for summaries of the history of more than a dozen buildings. Max H. von Freeden, the gifted and energetic director of the Mainfraenkische Museum in Wuerzburg, has written a short biography that is factual and accurate.³ After the author's remarkable study of Neumann as a city planner, one could not but hope that this would

church interiors. The most serious of these shortcomings are due to the publisher, rather than the author. In the post-war world only German and Austrian publishers have been willing to undertake popular monographs of this high quality. It ill behooves an American to complain because in this case the ideal solution had to be sacrificed in a compromise with salability.

By far the most important contribution of the year was the exhibition von Freeden organized and its excellent catalogue. Few displays can be more boring than several hundred architectural drawings, uniform in size, similar in character and all emanating from the same office. Here monotony was avoided by the judicious inclusion of maps, diagrams and photographs, of fragments from destroyed rooms, of portraits of Neumann, his collaborators and their patrons, of the architect's models, of bozzetti for architec-

tural sculpture, of letters and other personal memorabilia. Despite such a diversity of material the exhibition remained a unity. Merely as display technique the Neumann exhibition at Wuerzburg was an outstanding achievement. For anyone interested in baroque architecture it provided a major experience. There, hung up one beside the other, were the principal drawings for Vierzehnheiligen and Neresheim. Even more impressive, perhaps, was the series of projects for the Wuerzburg Residenz. One could compare the way such major figures as de Cotte, Boffrand, Hildebrandt and Welsch reacted to a given problem and discern how each was attracted or repelled by the solutions the others proposed. One could study the way Neumann fused the suggestions of these rival designers. Finally one could see him conducting and integrating the solo performances of fresco painters, stucco workers, sculptors, iron forgers and cabinet makers in order to make possible that symphony of the visual arts which was the final building. Even under ideal conditions architectural drawings do not have a comparable impact when studied in the solitude of a library or print cabinet. The Neumann exhibition demonstrated how much can be learned by this and by no other method of presenting architectural drawings.

The catalogue is equally remarkable.⁴ Each of several hundred items is discussed, and in every instance the relevant references to an interminable and very dispersed bibliography are cited. Many of the drawings are illustrated, including two designs for Schoenbornslust which have not hitherto been known. Finally the book contains a brief biography of Neumann in tabular form. Under every working year are listed the principal buildings on which he was engaged, his travels and the major events of his personal life. In short, von Freeden's catalogue makes up in so far as possible for the inevitable scholarly shortcomings of his monograph.

Collectively these books and the exhibition give a very fair impression of the state of our knowledge about Balthasar Neumann. The extent is impressive, indeed overwhelming. Yet there are major gaps. The influence of Hildebrandt and the French has been made clear, but his relation to the Dientzenhofers is less so, and we know very little about his understanding of or attitude towards Italian architecture. Few architects have learned more

quickly than Neumann; what did he see and study during his months in Milan?

As yet no one has adequately studied the most unsympathetic aspect of Neumann's style, his treatment of light. His great contemporaries, J. M. Fischer and Zimmermann, take pains to mask the sources of natural light. The high altars of their churches are generally illuminated from the side and the chancel windows are hidden from the visitor standing in the nave. Neumann, on the other hand, frequently surrounds the observer with windows as in the Wuerzburg Kaisersaal, or the projected stair hall at Stuttgart. The eastern ends of Heusenstamm and Neresheim are a blaze of daylight. His most characteristic type of altarpiece is an open screen of columns through which the visitor may face several long windows. The older generation of critics referred to this startling use of light as "a mistake." Our generation can see that it is a deliberate attempt to destroy the continuity of the wall plane. Perhaps he sought by his explosive use of light to dissolve the edges of the architectural forms, just as the stucco workers were dissolving them by the application of rococo decoration. In any event the principles which Neumann followed have never been fully elucidated.

The most provocative of all the unsolved problems is Neumann's relation to his subordinates. How much did he depend upon, how much inspire fellow artists like Auvera, Zick or Oegg? How much initiative was left to assistants such as Kuechel or Seitz? Teufel's book makes clear the importance of this problem; the exhibition suggested it could be solved, but did not provide the solution. Yet surely in this area lies the answer to the paradox of Neumann's personality and Neumann's buildings. Like Sangallo and J. H. Mansart, Neumann was able to direct the vast practice of a great firm and produce a series of buildings that are consistently individual in style. Unlike the works of these great administrators, his major buildings are as original in concept and as perfect in realization as the outstanding achievements of isolated introverts like Borromini. Balthasar Neumann was as successful an "operator" as McKim; he was also as radical and integral an artist as Frank Lloyd Wright. He is therefore a figure of quite particular interest to twentieth century Americans.

HARVARD UNIVERSITY

1. At Vierzehnheiligen even the color harmonies alter, like changeable silk. In a view from the entrance the predominance of the blue skies in the frescoes and the off whites of the walls creates a subdued, cool and unified effect. In the center of the building the more intense colors of the altarpieces, the figures in the frescoes and the golden-yellow spandrels are conspicuous. The effect is brighter, warmer and more staccato. This difference may help explain why general photographs of the interior have a smoky, underexposed appearance, whereas close-ups are quite

sharp and dramatic, indeed generally more dramatic than the building itself.

2. Richard Teufel, *Balthasar Neumann, Sein Werk in Oberfranken* (Lichtenfels: Bezirksverband Oberfranken, 1953).

3. Max H. von Freeden, *Balthasar Neumann, Leben und Werk*, *Aufnahmen von Walter Hege* (Munich-Berlin: Deutscher Kunstverlag, 1953).

4. *Balthasar Neumann, Leben und Werk, Gedächtnisschau*, 1953, Residenz Wuerzburg-Mainfränkisches Museum, Wuerzburg.

CREATIVE ECLECTICISM

CARROLL L. V. MEEKS

ECLECTICISM is an almost universal phenomenon generally occurring as a transition between periods of more vigorous activity in the arts and in philosophy. It is not limited to one or two exceptional periods. Its meaning and the value placed upon it have shifted often. Lomazzo, at the end of the sixteenth century, considered eclecticism a natural and, indeed, superior method of design because it saved the labor of working everything out fresh for each artist. Today, some contemporary Italians, such as Luigi Vagnetti, the architect of the Palazzo Grande at Leghorn, take eclecticism for granted, alleging that the 20th century is one of continual eclecticism with all the arts borrowing from each other. They have introduced ideas which Lomazzo would have found alien, such as that the eclectic must work in isolation, he must derive his style from a style pure in itself and make his selections by wizardry of taste on non-stylistic considerations.

There have been many different eclecticisms besides these two Italian examples but there has not been too much agreement on the meaning of the term. The sculptures of the first century B.C. provided early instances—such as the group of Orestes and Electra in the Naples Museum which combines the reworking of the mid-fifth-century Stephanos figure, Orestes, and the early fifth-century type of head, Electra, with draperies and composition of the sculptor's own. Consider, four centuries later, the Arch of Constantine in Rome. Is this eclecticism, too, or is it a *collage* of previous periods?

The Doges' Palace is often called eclectic. What attitude toward the historic styles is being expressed here? To what extent are its combinations of diverse elements self-consciously eclectic? As for Walpole's Strawberry Hill, it was Gothic Revival in the sense that it was composed of elements selected from the Gothic repertory and it was eclectic in the sense that the sources included not only many periods of medieval architecture but ranged from tombs to chapter houses. McKim, Mead and White seem sometimes to be eclectic and sometimes to be revivalists. Which name is more accurate? Is eclectic also the name for a campus such as Yale's with its Gothic, Moorish, Italian Villa, Victorian Gothic, and Colonial buildings? What

about our ubiquitous "Main Street(s)" in which we can see the hands of different architects working at different times, drawing upon the past, the results clashing together? To ask a more searching question, are we correct in dismissing the eclectic architects of the last century as near-idiot, deserving our contempt because, having surrendered to their inferiority complexes, they seem to have spawned little but ugliness?

The following observations are made in an effort to reduce the number of these ambiguities—the eclecticism of eclecticism. There seem to me to be several distinct types of eclecticism: (1) Symbolic, (2) Synthetic, (3) Revivalism, (4) Creative, all of which can be found in the period from 1760 to 1914.

The first type, Symbolic eclecticism, is the "engrafting and commingling" of buildings of different styles in *one area* such as square or street but not in *one building*. (The commingling of elements in a single building is Synthetic eclecticism.) The Symbolic type seems to be a fairly recent concept. It is self-conscious and romantic. The diverse buildings of a group are built at one moment, though suggested, perhaps, by historical examples, such as the Piazza San Marco, where the combination of Byzantine, Gothic and Renaissance styles is sequential. Among the early examples are such gardens as Stowe or that of Kew laid out in the 1750's by Sir William Chambers. Here in one place, visible from each other, built at one time, are buildings based on Moorish, Chinese, and Byzantine styles. Nearby there were Greek and Roman edifices, too. The aim of this kind of eclecticism was to stimulate delightful moods by the thoughts associated with each style, symbolic of an alien and, it was thought, superior culture.

While some Englishmen were in this mood, others like Sir Joshua Reynolds, were denying the virtues of eclecticism. "To mix the Dutch school with the Italian means to wed two contrary things, which reciprocally destroy the effect." (The architects of the next century were to preach the exact opposite.) In Gondouin's Place de l'Ecole de Chirurgie (1780), the church, medical school and prison are not harmonized in the baroque manner but stand out independently, each expressing through its forms the character of its use. In the 1840's, the Italian, Pietro Selvatico, exerted his powerful influence in favor of Symbolic eclecticism. It was his contention that churches should be built in the Early Christian style, or Gothic, cemeteries in

CARROLL L. V. MEEKS offers a theory growing out of the researches for his forthcoming studies on the railway station and on Italian 19th-century architecture. This paper was read at the 1953 annual meeting of the Society of Architectural Historians.

the Byzantine or Gothic styles, cafés in the Arabian (perhaps because coffee comes from Arabia), dwellings in one of the Renaissance styles. This was a widespread and acceptable idea in some quarters, then, as now. It was practiced in nineteenth-century England. John Foulston's city square at Devonport is an instance. He built the city hall in 1821-22 in Greek, the public library in Egyptian in 1823, the memorial column in 1824 and the Mount Zion Chapel in "Hindoo" in 1823-24. One difficulty with Symbolic eclecticism, as these examples indicate, is the inability to reach agreement on what the symbols stand for. (Foulston's use of "Hindoo" for the synagogue may well be the earliest example of what became a century-long, worldwide association of the Moorish style with synagogues.) Something of the sort is occurring today. What are we to call the work of a firm which has just completed two churches in the same block, one in the Colonial style and the other in the International style? It is suggestive to recall Sir Gilbert Scott's scathing words, "For the architect to express his liberty for choosing for each building just what style he may fancy, now one, now another, is manifestly vicious." This is an extreme position, that of revivalist.

Even though the symbolic or dispersed type was widespread, it is no more important than the second type, the *Synthetic*, which was defined in the 1850's as, "The science manifested in selecting the presumed perfections of every style or manner and engrafting or commingling the characteristic features as the occasion may require."

An example of this is Henry Austin's Moses Beach House, Wallingford, Connecticut. It combines Italian Villa, Greek and Oriental elements. This kind of eclecticism is very old. It is what the Greeks had done, what Lomazzo and Zuccaro preached and practiced, and what seemed to Scott an age-old process in which each age leaned upon its predecessor and so advanced—a position which can be defended. Architects in the nineteenth century were being taught eclecticism as a method of design insuring good results. Viollet-le-Duc taught it! "The architect's education," he said, "must proceed in two stages; first he must learn to analyze the masterpieces of the past; then he must make his own synthesis." "Eclecticism is a principle of the highest value," said Scott, "in the sense of borrowing elements wherewith to enrich, amplify and make more perfect." This was the idea behind Victorian Gothic, which was a limited Synthetic eclecticism, the common denominator being Gothic but the elements being selected from France, Germany and Italy as well as England. William Burges' competitive design of 1868 for the Law Courts, London, a stupendous conception, shows how effective this combination could be.

The stricter Gothic and Classic revivals were forms of eclecticism also. The selection from the past was even more limited than that permitted in Victorian Gothic, but the

underlying idea was the re-use of past forms influenced by the associative values stressed by Symbolic eclecticism. This interpretation is the opposite of the one held, for instance, by Everard Upjohn, who said that the germ of eclecticism lay in the revivals. It was the other way about. Symbolic eclecticism preceded the revivals, and Creative eclecticism came after them. The revivalists realized that their narrow form of eclecticism was being threatened by a broader conception growing up in the mid-century; hence, such dogmatic revivalists as Viollet-le-Duc's collaborator, Lassus, called eclecticism "the plague of architecture." Why was the danger a real one? Principally because the limited program of revivalism could not long hold creative spirits in thrall. As soon as an archaeological standard became the criterion of merit, the end was in sight. Sir Gilbert Scott's winning design for the Church of St. Nicholas, Hamburg (1846), is a famous example. Not only did one then have to design within the limits, say, of 13th-century English Gothic, but one had also to be scrupulously exact; there was a large and growing body of experts to challenge the authenticity of every detail. Such an outcry if your mouldings were "half an hour too late"!

In the 1870's an American revivalist was telling clients about to build a church:

... not to expect their architect to invent either a new order of architecture or a new variety of Gothic, because there was ample scope for the genius of an architect within the wide limits of Gothic. The adaptation of what has been wrought out during the past eight centuries should satisfy modern aspirations.

At about the same time the often estimable Digby Wyatt was telling the undergraduates at Cambridge "not to tread on the very dangerous and almost untenable grounds of entire innovation." There was no elbow room for a Burges or a Richardson in such a strait jacket. Wyatt's advice was certainly not heeded, perhaps because his hearers agreed with Michelangelo, who predicted the fate of the revivalists when he said, "he who follows in the footsteps of another never overtakes him." The chief distinction between Creative eclecticism and its predecessors was the fact that from the '60's on the emphasis was placed on the desire to be *original* and *creative*. Viollet-le-Duc implies this, "We have seen designs made up from the most fantastic mixture of styles, fashions, epochs and means, yet not betraying the slightest symptoms of originality." His own design for a monument for Algiers is a highly original example of Synthetic eclecticism though perhaps vulnerable to Van Brunt's comment that "too many try merely to astonish."

There is considerable evidence that the later eclectics were synthesizing in order to become original. The *Dictionary of Architecture* said, "Nothing narrows the mind and cramps the invention more than blind admiration and the pursuit of one style to the condemnation of every other." Viollet-le-Duc thought that the eclectic was aiming

at originality but did not usually achieve it. While both the revivalists and the early eclectics turned toward the past for forms, the Creative eclectic added yeast to his mixture—the will to create something new. Some of the less archaeologically-minded revivalists also wanted to be creative. The concept “that only a style which had not previously been carried to its full development could be taken up again and be carried forward,” was shared by William Goodyear, writing in 1893, who thought that this principle explained the success of Richardsonian Romanesque. It is the same principle which turned the minds of so many modern artists to African sculpture or cave painting. Van Brunt, one of the architects of Memorial Hall in Cambridge, had it in mind when he explained the failure of the revivals in England and the success of American developments because “in the United States our eclectic and cosmopolitan use of precedent was infinitely more promising. True progress is possible by a liberal system of experiment with precedent.”

Even Digby Wyatt, whose hard words against innovation we quoted above, said that the student should “stock his mind with the choicest forms, proportions and elements from the past from which he may derive the materials for a recombination in an attempt at originality.” He isn’t very enthusiastic or encouraging but does hold the door open, just a crack, to admit innovation.

The dangers of the eclectic system were apparent to all. What rules could the eclectic follow? Modern writers seem to think that they had none and wanted none. For instance, Upjohn has said that they were guided only by associations (Symbolic eclecticism), national prejudice, training and whim. Sullivan’s partner, Adler, had said of the revivalists that “Form follows historic precedent.” Upjohn seems to imply that for the eclectic “Form follows Fancy.” Talbot Hamlin has said that the ideal was “ostentation.” Certainly the results sometimes seem to confirm these canards, but actually there were perfectly sound guiding principles which eventually came to more recognizable fruition as we shall see.

Our failure to recognize the wide-spread acceptance of these rules and to assume that if there were any they were only understood by the pioneers and not by the majority, can be explained by our own recent history. We passed through the period of the Art Nouveau, which sometimes seemed to lack rules although it was original. Then we came to the development of new forms which seemed to have no connection with eclecticism, in which the originality was the most conspicuous characteristic and admired as such. Now, the first flush of excitement being well past, a new respect for discipline can be seen all around us and Mies van der Rohe is becoming more admired than Wright. Thus we are in a mood more receptive to the idea of discipline and are better conditioned to see it in other periods.

The following set of rules or standards for judgment are those expressed by nineteenth-century writers such as Scott, Wyatt, Semper, Viollet-le-Duc, Van Brunt, who translated his *Discourses*, and Goodyear, rephrased and combined for convenience as follows:

A creative eclectic building should be judged; *first*, as to whether it adhered to the constructive principle involved; *second*, whether the exterior was an expression of the interior, in either an “ideal” or “literal” sense; *third*, whether the forms were employed with freedom and independence rather than literal exactness; *fourth*, whether the reminiscences were wisely coordinated and placed in perfect agreement with each other; *fifth*, whether it served the conditions and used the materials dictated by the age; *sixth*, whether the result was simple and comprehensible.

Creative eclecticism coincided with the third phase of “picturesque eclecticism.” The principles of “roughness,” “movement,” “irregularity,” “variety,” and “intricacy” were still operative. There was a rejection of the extreme verticality of the preceding phase—seen in Scott’s St. Pancras Station; its silhouette dominates a whole quarter of London—accompanied by a turn toward more classical forms as seen in Hoffman’s Leipzig Law Courts of the ’80’s. Movement of the masses was under more restraint and the number of parts were reduced. These changes can be most easily observed in the outline which *subsided* from jagged effects; bristles and spikes were replaced by stumpy blocks terminating in “bubbles.” The stupendous roofs were either lower or omitted; the main masses became predominantly horizontal as in modern architecture.

There is, during the last third of the century, a mental climate of mounting self-confidence with the realization that the rules of the academies were not final, that the conception of ideal beauty was not fixed forever, that archaeological exactitude had nothing to do with architecture, that artistic freedom was a reality.

Examples of Creative eclecticism include Camillo Boito’s Home for Musicians, Verdi Foundation, in Milan, of 1899 (so original it was called “Stilo Boitiano”), or much later Goodhue’s Nebraska State Capitol. Both are personal expressions, both eclectic, yet neither of them looking like anything in the historic past. There is much good work in these decades, some of it unrecognized, some of it yanked out of context and hailed as “exceptional” or “early modern,” even though the muses did not invariably preside over their drafting boards. Henry Lenning has claimed in his recent book, *The Art Nouveau*, that Henri Van de Velde and his followers erected the bridge between the nineteenth century’s eclecticism and the twentieth century’s International style. I am proposing to put the foundations of that bridge back by a generation and to reduce his sinuous and curvilinear span to but one of many belonging to a longer and more substantial viaduct.

Eclecticism, therefore, can be broken down into several types: the *symbolic* variety, in which the literal forms of the remote past are juxtaposed for symbolic and associative reasons, as in Foulston's Devonport; the *synthetic* variety in which elements from the past are combined in single buildings to suit new needs and new purposes, as in Street's Law Courts, often thought of as the last of the revival buildings and perhaps the best; and the *creative* variety, in which the elements from the past are valued as the means for creating something original. This newly re-found freedom in turn leads to a gradual sloughing-off of the residue of past forms of any kind and the creation of wholly new ones to fill the vacuum—modern architecture—conforming even better to the canons of expression of structure and material and the suitability of form to function. This was being said in 1897 by Emile Grasset which is an indication that the process was a deliberate one, observable at the time.

This process may be seen in two pairs of examples:

Henry Austin's Moses Beach House combines eclectic detail and original massing, far-flung horizontal extension, flaring eaves, and low hipped roofs, and floating detached superstructure. This seems to anticipate similar features in Frank Lloyd Wright's Robie House of 1908, which is purged of the derivative eclectic stylistic features. Similarly, Viollet-le-Duc, in his design of the 1860's for a "Masonry Building," is under a heavy burden of eclecticism while striving to express the possibilities of metal in compression in his disturbing struts. Only 20 years later Contantin in his *Galerie des Machines* found the way to express tapering steel supports, free of traditional overlays. The two more recent examples would have been impossible without the preceding phase of Creative eclecticism which re-opened the doors to innovation and new forms. So, perhaps, we can begin to see recent eclecticism as a valuable state of mind during which powerful intellects were at work preparing the way for us.

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JACKSONVILLE, AN OREGON GOLD-RUSH TOWN

MARION D. ROSS

THE MAIN interest in Jacksonville lies in the general effect of its buildings. The town possesses, in a singularly well-preserved state, the character of a Western town of the third quarter of the nineteenth century.¹

In December 1851 James Cluggage and John Poole heard of the discovery of gold along Daisy and Jackson Creeks, two small tributaries of the Rogue River. They began operating placers in January 1852. Their success attracted others and an Oregon gold-rush was on. The first cabin of logs was built by N. W. Fowler in March 1852. That summer the town was surveyed and laid out in grid-iron fashion by Klippel and Smith (Fig. 2).

The town quickly became the seat of the newly formed Jackson County (1852) and for the next thirty years was the most important community in Southern Oregon. By the late eighteen-seventies a decline was noticeable and after the railroad by-passed the town in 1884 it was dor-

mant. A panoramic photograph taken in June 1887 shows the town almost exactly as it is today (Fig. 1).

While the earliest recorded building was a log cabin, it appears that the majority of the early buildings were of the box type. Fir boards one foot wide by sixteen feet long and one inch thick were placed together upright and edge to edge then covered on the outside with rough clapboards. In most cases a third layer of boards, placed horizontally, formed the inside wall surface. This was a very common type of construction in Oregon and examples are to be found in every old town. Almost equally early were buildings with a rough-hewn frame. Examples of both these types of construction are found in Jacksonville. At first no glass was available because of the long pack trail and cotton drilling was used for the windows. Of this ephemeral material nothing now remains.

With surprising speed the town began to take on more permanent form. The first kiln of brick was fired in 1853 to build the general store of Maury and Davis on Oregon Street (No. 20). The mason was named Fehley. It was converted into the Town Hall in 1873 and still serves this pur-

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FIG. 1. Panoramic view of Jacksonville looking northeast. (Peter Britt, June 1887. Oregon Coll., University of Oregon Library)



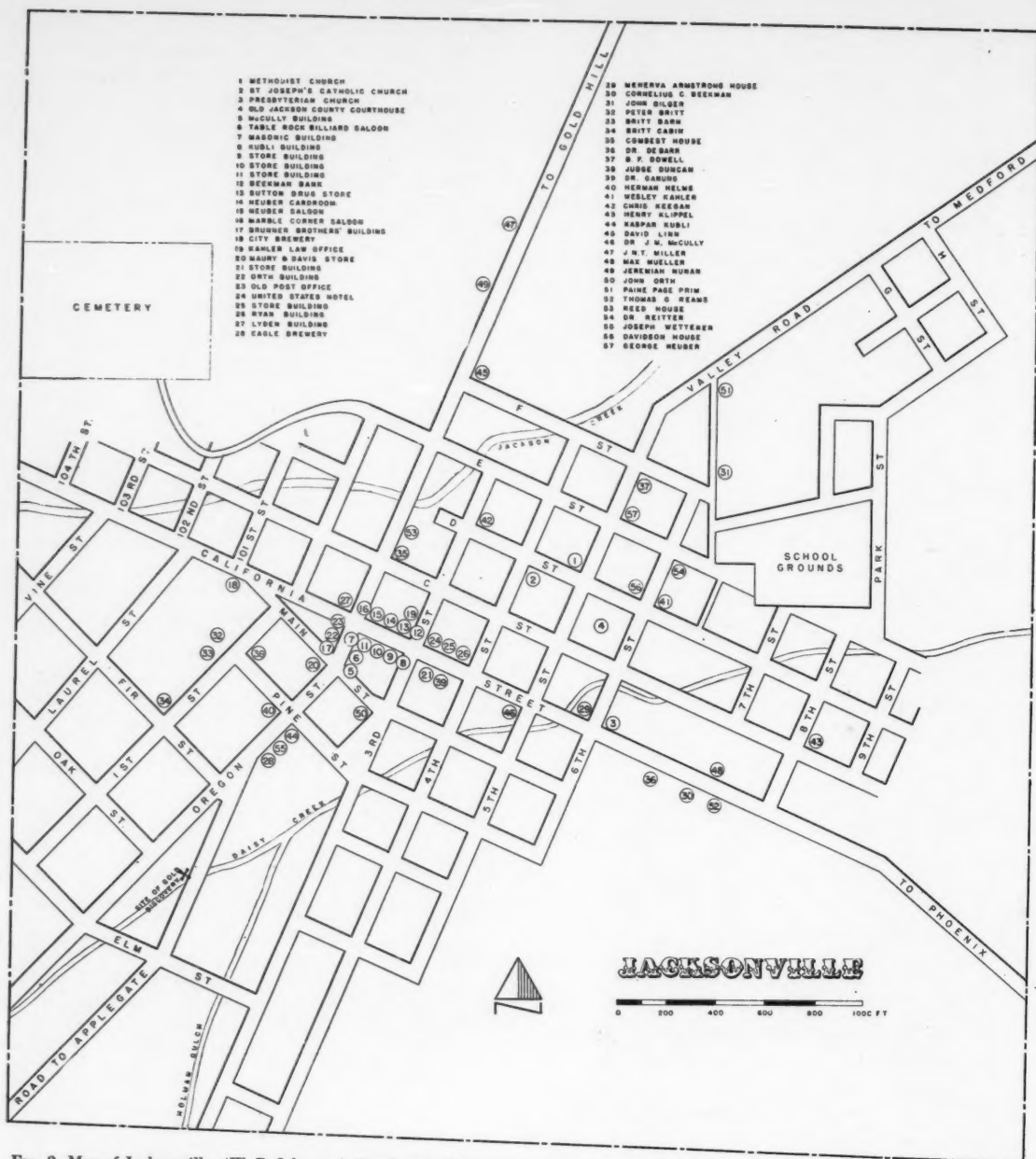


FIG. 2. Map of Jacksonville. (W. B. Johnston) Numbers in the text refer to numbers on this plan.

pose. This and the nearly contemporary Brunner Brothers Store (No. 17) are the oldest structures still standing. Both of these buildings are of the plainest and most unpretentious form. They are rectangular brick boxes with low pitched roofs. A little corbelled brickwork suggesting a cornice is the only ornament. On occasion they were used as forts for protection from the Indians.

Wells Fargo and Co. opened an office in Jacksonville with C. C. Beekman as their agent. His bank (Fig. 3, right; No. 12), built in 1856, has been preserved exactly as it was in the great days when the safe was full of newly mined gold. Formerly there was an awning of overlapping boards that protected the front and turned the corner. These board canopies have all been replaced by corrugated iron with

considerable loss of character. Adjoining the Beekman Bank is a row of well preserved one-story buildings built about 1885-56 (Nos. 13, 14, 15). Sutton's Jacksonville drug store (Fig. 3, center), Neuber's cardroom, and Neuser's saloon, with the bank make an unusual block.

Somewhat grander are two buildings in the next block on Oregon Street (Fig. 4; Nos. 5 and 6). The McCully Building on the right (c. 1855), is the first two-story building. This structure still has its original iron shutters at the doors which contribute to the unity of the façade. The building on the left is the Table Rock Billiard Saloon (c. 1856). The mason Fehley worked on both of these structures.

Another two-story brick block built c. 1858 (No. 21) and used for a store has a more ambitious attempt at architecture. Its façade is divided into bays by rather awkward pilaster strips, but the effect is not as good as in the simpler McCully Building. Both have semi-elliptical relieving arches over the ground floor window lintels. Still another small brick building was built about 1860 for Wesley Kahler's Law Office (No. 19). It has three round arched openings across the front surmounted by a "false front" rather Dutch or Jacobean in style.

For the religious needs of the community two simple churches were built. The Methodist Church (Fig. 1, far left; No. 1) was built in 1854 by subscription, some of the local gamblers contributing heavily. The land was donated by James Cluggage, one of the town's founders. The church was built by Messrs. Pyle, McDonough and David Linn. It was turned about on its site in 1883 when the new courthouse was being built. It is a simple rectangular wooden box. No vestibule, chancel, or other projection breaks the shape. The tower is of the same direct form, a square base and a square steeple. Several other churches of this decade in Oregon are of the same, almost standard, type. The detail is of classic derivation. The interior is plain except for a dado of vertically grooved boards.

In the next block is St. Joseph's Catholic Church (Fig. 5; No. 2) for which the contract was let in October 1858. It was finished in 1859 though not dedicated until 1861. Berry and Kerr were the builders. The general form is almost the same as the Methodist Church and they are nearly identical in size. This building has an added note of elegance in the use of pointed windows and more graceful detail. Both of the churches were formerly neatly enclosed in yards with picket fences. The interior of the Catholic Church is almost as bare as the Methodist, but a small balcony over the entrance provided for the choir and an addition at the east for the sacristy. The effect of these simple churches is delightful and they are among the most pleasing buildings in the town.

Turning now to the houses, we find that most of the first sheds have disappeared and that those remaining from the mid 1850's have considerably more character. One-story or one-and-a-half-story houses with a modest amount of

classical trim, like the Reed House (No. 53) and the Combest House (No. 35), are the earliest type.² They often have a more broken mass than one would expect in this sort of house. A house built for Henry Klippel about 1860 (No. 43) is an instance of this. It is a narrow story-and-a-half house with gable end turned to the street. Along the right side is a porch with lattice columns and elliptical arches leading to the classically detailed door. The J. N. T. Miller House of about the same date (No. 47) has a similar classic door with side and top lights and a steep gabled roof. Common in the town is the use of broad and pronouncedly tapered architraves around the doors and windows. This feature appears in both these houses.

The William Bybee House³ on the road leading into town is of a larger but also common type. This example, which can be dated about 1854-55, has a central hall with one room on each side and a wing extending to the rear containing the dining room and kitchen. The detail is of classic type and fairly rich both inside and out. The side and top lights around the main door are filled with green and purple colored glass. This type of house was often used as a stagecoach inn and several examples remain throughout the state.

The Benjamin Franklin Dowell House (Fig. 6; No. 37) was built in 1859 and is more unusual. The owner came from Virginia and was a graduate of the Law School of the University of Virginia. There is a local tradition that there was some architectural advice from Washington, D.C., but it seems unlikely that any professional architect could have been on the site. The house is brick, two stories in the main block and one story in the rear. It has a central hall with parlors on either side. They have ornate mantle-pieces partly of Italian and partly of local marble. The porch and the window sills are of local marble. The foundation is well-cut sandstone. From old photographs it appears that it originally had a flat roof (Fig. 1, extreme left). The general character might seem to suggest that the builder intended to have a Georgian Colonial house, but the round headed windows with moulded brick frames and a triple arched loggia in the rear wing rather suggest the more up-to-date ideas of the Italian Villa style.

In describing the character of the Villa style, A. J. Downing says, "the windows are bold and well marked in outline, being either round-arched at the top or finished with a heavy architrave."⁴ He also speaks of "... arcades with Roman arched openings, forming sheltered promenades ..."⁵ This idea appears in the loggia to the rear of the Dowell house. Formerly the colors were reversed; there were dark walls and light trim.

Beginning about 1860 we have another series of houses, this time in the Gothic manner. They all seem to have been the work of one man, and some are known to have been the work of David Linn. Linn was born in 1826 in Guernsey County, Ohio, and came to Oregon in 1851.⁶



FIG. 3. Beekman Bank (right), Sutton's drug store (center) and Neuber's cardroom (left), Jacksonville. (W. B. Johnston)



FIG. 6. Benjamin Franklin Dowell House, Jacksonville. (W. B. Johnston)

FIG. 4. Table Rock billiard saloon (left) and McCully Building (right), Jacksonville. (W. B. Johnston)



FIG. 7. Peter Britt House, Jacksonville.
(Peter Britt, c. 1885. Oregon Coll.,
University of Oregon Library)

FIG. 5. St. Joseph's Catholic Church, Jacksonville. (W. B. Johnston)

FIG. 10 Kubli Building and Redmen's Lodge,
Jacksonville. (Peter Britt, c. 1885. Oregon Coll.,
University of Oregon Library)



FIG. 8. Max Mueller House, Jacksonville.
(W. B. Johnston)

FIG. 11. Presbyterian Church, Jacksonville.
(Peter Britt, c. 1885. Oregon Coll.,
University of Oregon Library)



FIG. 9. Jeremiah Nunan House, Jacksonville.
(W. B. Johnston)

FIG. 12. Jackson County courthouse (former),
Jacksonville. (Peter Britt, c. 1885. Oregon Coll.,
University of Oregon Library)



The house of Paine Page Prim (No. 51) was built by David Linn about 1860. Mr. Prim was a prominent lawyer and judge in the district. It has a T-shaped plan with stair in the stem projection, two bay windows, and is in the manner known to the nineteenth century as "Rural Gothic." The windows and doors have architraves with tapered sides but otherwise the detail is largely Gothic. The bargeboards are cut in an S scroll pattern and had delicate finials at the ridge (the house is now in bad condition and much detail is lost). The design in plan and mass is close to a scheme presented in *Woodward's Country Homes*⁷ with the plan reversed. Probably both designs go back to Downing. The character is very similar to that of the Benjamin Marsh House of 1856 in Newport, Rhode Island.⁸

In contrast to the poor state of preservation of the Prim house, the Peter Britt House (Fig. 7; No. 32) is in excellent condition. Britt was a Swiss painter who took up photography in order to make a living. He arrived in Jacksonville in 1852 and remained to become a leading citizen. He was the first photographer in Oregon and, among other firsts, took the first pictures of Crater Lake.⁹ The house at first was a single block with dormer windows lighting the low second floor. Later, probably in the middle 1880's, a higher studio wing was added at right angles to the first block (Fig. 7, rear). The first part of the house seems to have been built about 1860. The bargeboards are most unusual—cut from two planks in an interlaced design. The veranda has very lacy Gothic tracery between the posts and the windows have delicate label mouldings. The only pointed windows are in the later addition. The interior has a rather heavy trim of dark woodwork including a panelled wainscot. Elliptically arched double sliding doors connect the parlors. Altogether it gives one a fine idea of the pleasant rural retreat of the nineteenth century. Woodward describes a similar design in terms which fit the Britt house almost exactly.¹⁰

This type of residence was quite popular. Another good example is the Thomas Fletcher Beall House in Beall Lane a little out of the town built by David Linn about 1864. The bargeboards, the generally steep roof forms, and the picturesque profile proclaim another essay in the "Rural Gothic." Among similar houses in the town is the Cornelius C. Beekman residence (No. 30), the lone survivor of a row of four such cottages. It retains the original shutters and the latticed posts of the porches, details which have disappeared from many of the houses. Until its destruction in 1952 the John England Ross House on Ross Lane in the outskirts displayed the same Gothic features. The looped pattern of the verge boards was similar to the one used by Upjohn on "Kingscote" in Newport in 1841. The porches had lattice posts connected by Gothic tracery and the picket fence had a looped top rail.

About 1870 there was a change in the work of the leading carpenter. Possibly some new source book had come

to hand. The change is to larger, two-story houses with low pitched roofs, frequently with Italian Villa style detail. They are often still the work of David Linn. The Herman V. Helms House of c. 1870 (No. 40) seems to be the work of Linn. It is more compact and formal than the Gothic cottages. It has a three-bay front with porch and balcony in the center and long French windows at the sides with their own small balustraded balconies (now removed). There is a full entablature but no brackets.

Linn's own house (No. 45) was more Italianate. With two bay windows on either side of the door, a low hipped roof, and a heavy bracketed cornice, it has the features of the Villa style. Unfortunately it is in very poor repair. Better preserved, the Max Mueller House (Fig. 8; No. 48) is planned on a similar scheme, but with two-story bay windows marking its verticality in a more up-to-date fashion. It was built by another carpenter, Ed Smith, but surely he used the same type of source book. The John Orth House of 1879–80 (No. 50) is similar to these two but built of the local brick. It has lost its front porch which had a balustraded deck at the second floor but the characteristic roof, the bracketed cornice, and a recessed side loggia remain. By the time this house was completed the prosperity of Jacksonville was beginning to wane. Only a few large houses were built in the next decade. Among them the Thomas G. Reams House (c. 1880) (No. 52) by Ed Smith is in a modified "Queen Anne." The detail is changed to crossed lattice and spindle work and a square bay with a reduced version on the second floor is also typical of this style. One can notice that as time passes there is less of a lag between Oregon and the East in architectural fashion.

The most pretentious house in town is just about the last to be built. Apparently about 1890 the local merchant Jeremiah Nunan built his large house on Oregon Street (Fig. 9; No. 40). Bigger than any of the earlier houses, what it lacks in refinement it makes up in boldness. It is a frame structure covered with clapboards and shingles and with a massive brick and stone chimney. It belongs to the wilder and less domesticated versions of the "Queen Anne." This design appeared in *The Cottage Souvenir* by George F. Barber of Knoxville, Tennessee, in 1892, where it is stated that it had been built in Taylorville, Illinois, and in Jacksonville, Oregon.¹¹ It is unusual to find the actual source for a house that followed the pattern so closely, though it must have been fairly common practice in Oregon. With its vigorous display it brings the domestic architecture of this small town to a dramatic end.

The last decade of the town's active growth saw the addition of some more business blocks. The Orth Building of 1872 (No. 22) introduced the use of piers of rusticated brickwork and heavier mouldings. In 1875 the Masonic Building (No. 7) continued the use of the richer detail and added a deeply bracketed cornice. Both of these are two story brick structures. The United States Hotel (No. 24)

was hurried to completion in September 1880 just in time to receive President Hayes and his party as its first guests. At this time Jacksonville was still an important stop on the stage route to California. The proprietress of the hotel was a French woman who had married the town's leading mason, George Holt. This building like nearly all of the later brick structures was his work. Formerly a long porch ran across the front and made a balcony in front of the second floor rooms. Across the street the Kubli Building and Redmen's Lodge (Fig. 10; Nos. 8 and 9) were built together in 1884 by the mason Holt. They are of red brick and had their bracketed trim painted white with details in a darker color (now changed). Identical except for the center windows on the second floor, these buildings have the heavier piers and rusticated brickwork that is typical of the 1880's in Jacksonville. Here there is a return of the façade architecture on the side, both at the front and back, a feature of refinement not very common among such buildings in the West.

The only other church, the Presbyterian (Fig. 11; No. 3), is contemporary with these later stores. It was built in 1881. George Holt was the mason, David Linn was the carpenter (probably contractor), and Kaspar Kubli, a German, did the rather special metalwork on the chimney. The tower is placed asymmetrically and the whole church is raised on a high basement of rusticated woodwork. It is more lively and much more vertical than the earlier churches. The details are carefully handled on the exterior, but the interior is severely plain. It measures 30 by 54 feet and was built for the even then low sum of \$4000. The general type is so much like the design used as a frontispiece in Downing's *Cottage Residences*, 1873 edition, that it may have been based on this model.¹² This design is described as being 25 by 48 feet and capable of being built for \$3500.¹³ It further specifies stained glass windows with

colored borders set in lead quarries which also applies to the Jacksonville church. There are also similarities between this church and some illustrated in *Bicknell's School House and Church Architecture* (1877).¹⁴ The framed panels and the patterned ends of the siding are features of these examples.

The old and very plain frame courthouse became too small and insignificant for the importance of the county so it was replaced in 1883-84 by the present structure on the same site (Fig. 12; No. 4). The builder was the mason George Holt. Largely in the Italianate manner, it really does not conform to a very definite style. It is substantially built of brick on a cut sandstone foundation. The trim, including the porch with its carved Corinthian capitals, is of wood. The porch roof and balustraded deck seen in the photograph have now been replaced by a clumsy gable. The fine fence is also missing today. The interior has a central hall with offices on either side on the ground floor. A stair at the front leads to the spacious courtroom occupying nearly all of the second floor. The cost was \$32,000 and it was claimed to have been the cheapest building of its kind erected in Oregon in the nineteenth century. It was felt to be the crowning glory of the community and of Southern Oregon, but it was the last important addition to the town's architecture. In 1884, the year it was completed, the railroad by-passed the town by about six miles and Jacksonville's prosperity was doomed. In 1894 there were only 900 inhabitants. Fortunately this commercial decline has had the good result of preserving the town with little change. And now with the establishment of the Southern Oregon Historical Society's museum in the old courthouse and the beginning of popular interest in the old buildings of Oregon, it appears that this town is destined to become the center of a new life.

UNIVERSITY OF OREGON

1. The author wishes to acknowledge his indebtedness to William B. Johnston, student in the University of Oregon, for his assistance in collecting information and in particular for taking photographs of many of the buildings in Jacksonville.

2. Measured and photographed by the Historic American Buildings Survey: The Reed House, 6 sheets (1934), 2 photos (1934); The Combest House, 9 sheets (1934), 3 photos (1934). These were the only houses in the town measured by the Survey and both are now altered almost beyond recognition.

3. This house, about 1½ miles from the town, was measured and photographed by the Historic American Buildings Survey: 13 sheets (1934), 3 photos (1934). It survives with only minor alteration to the fenestration.

4. Andrew Jackson Downing, *Landscape Gardening and Rural Architecture* (2nd. ed.; New York and London: Wiley and Putnam, 1844), p. 358.

5. *Ibid.*, p. 357.

6. Joseph Gaston, *Centennial History of Oregon, 1811-1911* (Chicago: S. J. Clarke Pub. Co., 1912), III, 885-86; biographical article on David Linn.

7. George Evertson Woodward, *Woodward's Country Homes* (New York: Geo. E. and F. W. Woodward, 1865), pp. 30-34.

8. Antoinette F. Downing and Vincent Scully, Jr., *The Archi-*

tectural Heritage of Newport, Rhode Island (Cambridge: Harvard University Press, 1952), Pl. 159.

9. Britt showed remarkable documentary interest in his photography. A considerable number of his negatives are now in the Oregon Collection of the Library of the University of Oregon.

10. Woodward, *op. cit.*, p. 187.

11. George F. Barber, *The Cottage Souvenir, Revised and Enlarged* (Knoxville, Tenn.: S. B. Newman and Co. Steam Book and Job Printers, 1892), p. 79. On p. 178 there is a testimonial letter about the Jacksonville house signed H. F. Wood, builder.

In 1891 the same author had published *The Cottage Souvenir No. 2* which seems to imply an earlier edition but no copies of this have been located. This design does not appear in the edition of 1891 but it may have been in the presumptive earlier edition as the house had apparently been built before 1892.

12. Andrew Jackson Downing, *Cottage Residences* (new edition, New York: John Wiley and Son, 1873), frontispiece, Design XXVII.

13. *Ibid.*, pp. 217-19.

14. Amos Jackson Bicknell, *Bicknell's School House and Church Architecture* (New York: A. J. Bicknell and Co., 1878), Plates 118, 121, and 126.

AMERICAN NOTES

CHARLES E. PETERSON, Editor

Old Custom House, 420 Chestnut Street, Philadelphia 6

EARLY PRISONS

In the eighteenth century America had few architectural achievements to attract serious attention abroad, but Robert Smith's Walnut Street Prison at Philadelphia, built just before the Revolution, was exceptional. Known in Europe and arousing discussion by social reformers everywhere, it was a product of the Quaker interest and support which made Philadelphia a leader in such matters. For example, as far back as 1722 the city had built a new prison in which the debtors and criminals were segregated into two buildings for the first time in Colonial America (Carl Bridenbaugh, *Cities in the Wilderness* [New York, 1930], p. 384). "The Society for Alleviating the Miseries of Public Prisons," formed in 1787 was another evidence of Philadelphia's preoccupation with these matters.

In the matter of prison architecture we here offer important new material on this little-published subject. We have Fiske Kimball to thank for acquainting us with Howard Rice of Princeton who rediscovered Pierre-Gabriel Bugniet, architect of Lyons. The latter inspired Thomas Jefferson to promote a penitentiary at Richmond along improved lines.

LATROBE COMES TO PHILADELPHIA, 1798

In 1796 the English architect and engineer Benjamin Henry Latrobe, destined to become one of the greatest of the profession in America, landed at Norfolk, Virginia. Two years later, he made his first trip north. The circumstances of this occasion are described in a letter to the Governor of the Commonwealth, for whom he was then building a large penitentiary at Richmond.

Sir;

In answer to the proposal with which you favored me on Friday last, I beg leave to say, that I accept of a Salary of £200.0 pr Annum as a compensation for my direction of the Work at the Penitentiary house.

At the same time I beg leave to state that though I am perfectly well acquainted with everything that has been done in Europe to render prisons safe, convenient and wholesome, I am unwilling to remain without the advantage of having seen what has been done at Philadelphia, and it seems to me to be of importance to the public that I should know it. I have also many private reasons for the journey, among which the first is, that since my arrival in America, I have not seen my very near and numerous relations in Pennsylvania,—the Antes family.—Previous to my departure I will leave the most ample directions should the work commence before the middle of April before which time I shall return,—but as the contracts for work

and materials cannot be made before the middle of the present month, & the season is still very early, I hope no possible delay can arise from my absence: and when the Executive take into consideration that since the beginning of the work I have never quitted the spot, I hope I shall be permitted to take this journey without forfeiting my salary or engagement. In the mean time I have begun to draw the necessary directions & should my absence not be inconsistent with the wishes of the Executive, I will deliver them to Your Excellency before my departure on Thursday morning. I am

with great respect

Yours &c

B. Henry Latrobe

Richmond March 5th. 1798

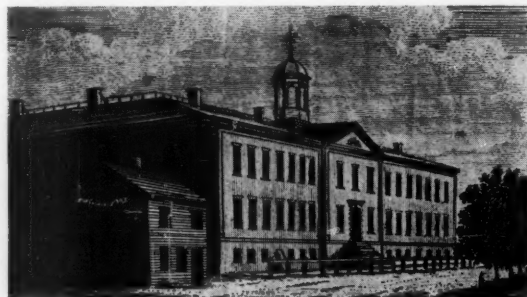
(Hist. Soc. Pa., *Dreer Collection, Architects and Sculptors*, MS)

WALNUT STREET PRISON, 1774-75

The Walnut Street Prison, Philadelphia, the objective of Latrobe's trip, was an important building much admired and studied by visitors from all over this country and Europe. As a fireproof building in Colonial America it probably deserves some kind of a priority in that field. Dr. James Mease, in his *Picture of Philadelphia* (Philadelphia, 1811, pp. 179, 180) gives us a good description:

The prison consists of a stone building, fronting Walnut street, about 184 feet in length, and about 32 in depth. It is two stories high, and divided into rooms of equal dimensions, viz. 20 by 18 feet: an entry in the middle 7-½ feet wide, leads to a passage 11-½ feet wide, extending the length of the building, with stairs and windows at each end: the upper story and the cellar are upon the same plan; there are eight rooms on each floor, all arched, for the two-fold purpose of securing against fire and escapes, with two windows to each room. On the east and west are two wings, extending ninety feet south, two stories high, containing five rooms on the floor of each wing, nearly the size of those in front, but with one window, and all arched: the ground floor of these was formerly the dungeon, but have not been used for some years. On the south side is a stone building, at first designed for a workhouse, where the debtors are now confined. Three hundred feet of the

The Walnut Street Prison, Philadelphia. (American Philosophical Society Library)



north part of the lot are appropriated to the use of the convict prison, and is divided into portions for the accommodation of the different classes of prisoners. Walls, twenty feet high, extending to Prune street, connect with the east and west wings.

The prison was designed and built under the direction of the late Robert Smith, and is one of the many buildings for which Philadelphia is indebted to that excellent and faithful architect. It is so effectually fire proof internally, the rooms being groin arched, that repeated attempts to fire it have failed; and the original external rough-casting stands to this day.

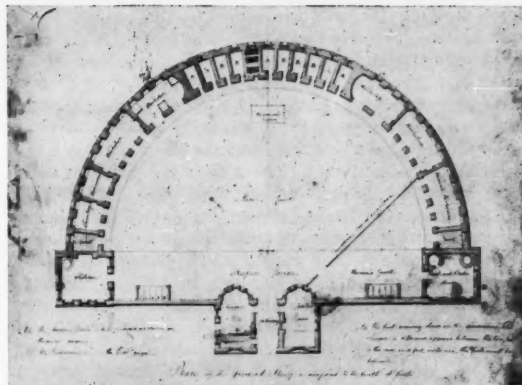
Sociologist Thorsten Sellin in his excellent sketch "Philadelphia Prisons of the Eighteenth Century" (*Trans. Am. Philos. Soc.*, Vol. 43, Pt. 1, April 1953, pp. 326-330) describes the evolution of this institution and illustrates it with an excellent plan and elevation from *The Philadelphia Monthly Magazine* for February 1798, citing several contemporary publications. The Montresor map of Philadelphia, c. 1778, (MS, Library of Congress) shows the main block of the prison still in two separated blocks. The central bay and cupola, completing the Walnut Street front, were evidently added after the war. Our view, a copperplate engraving by the artist James P. Malcolm, was evidently drawn at the turn of the century. Across Walnut Street was Joseph Fox's great gateway to the State House Garden.

VIRGINIA PENITENTIARY, 1797

From France in 1786, Thomas Jefferson sent home a plan for a state prison. The projected institution was laid out to utilize the principle of labor in solitary confinement—as opposed to labor on the public highways—a new idea then meeting with some approval. Jefferson's plan was his own version of a design by an unnamed architect of Lyons, somewhat cut down in size.¹

The project was actually carried out in Richmond a few years later.² Latrobe was engaged to design the new building and, adapting Jefferson's ideas, he produced a set of seven fine drawings, signed and dated 1797, which are

"View in perspective of the Gate of the Penitentiary House," by B. H. Latrobe. (Virginia State Library)



"Plan of the Ground Story as proposed to be built at first," by B. H. Latrobe. (Virginia State Library)

preserved in the Virginia State Library. The drawings portray a large and rather complex structure intended to be built in two or more stages.

Through the courtesy of the librarian, Randolph Church, we reproduce here, apparently for the first time, two drawings from the set. One is a floor plan for the first project; the other the main entrance to the building, as eventually to be completed, a design rather suggestive of those by the French architect Claude-Nicolas Ledoux (1736-1806).³ Our notes, taken several years ago, are only fragmentary, but they show that a construction contract was advertised for bids in February 1797, and an award for brickwork was made to John Harvie and George Winston the following month.⁴

The *Richmond Enquirer* for August 12, 1823, gave a lengthy report on the burning of this structure, together with some critical notes on its design. This was brought to our attention by Milton C. Russell of the library staff.

The Penitentiary was built in the form of a semicircle, the two extremities of which were connected by a high wall fronting the south, about the centre of which stood the spacious building designed for the residence of the keeper, but which had been of late converted into a store house &c. Parallel to this wall and building stood what was called the *centre building*, of the same height with the circular building and connected with it at each end. It was exclusively used for work shops. The circular building was three stories high, with three ranges of galleries extending from one extremity to the other. The two upper stories were used for lodging rooms and the hospital, &c. and the lower, for work shops and cells. . . .

The building . . . was admirably contrived. The rooms were arched at top, and for a long time screened those who were under them from the immediate flames.—For the same reason it is that so many of the cells, even some of the wooden doors, are scarcely singed by the fire.—It was the central building, where the fire first broke out, and communicated the flames to both wings of the semicircle, that laid the train of this misfortune.

Two singular features, therefore, present themselves to

soften the dark shades of this calamity—that not one out of 244 convicts was burnt—and not one attempted to make his escape. We may add, that not one accident occurred during the awful scene. . . .

We cannot estimate the loss to the commonwealth—the semicircular building cost at first about \$140,000—the central building was afterwards added—the goods and raw materials on hand might be worth about 40 or 50,000 dolls.—We know not the amount of goods that were rescued. The waggons, ploughs, and timber, under two sheds on the exterior, were nearly all saved. The timber under a 3d shed was totally burnt.—The House itself, except the central building, does not appear as much injured as might be expected. The outer brick walls stand though a small part of it must probably be taken down, & almost every room around the 3 galleries of the semicircular building may admit of being fitted out at no very extravagant expense. Ten or twelve of the cells, indeed, with their wooden floors and doors are not burnt; nor even the resin drawn out. . . .

The last penitentiary was essentially imperfect. Experience proves that it does not reform the criminal nor repress the repetition of crimes as much as was expected. The reason lay in the construction of the rooms—Criminals ought to sleep alone—and to work together as little as possible. It is *solitude* which ought to constitute the leading feature of such an Institution. Cut man off from the society of his fellows, and what a sting is there in the punishment? Mix together all the degrees of vice, and you will soon perceive how much 'evil communication corrupts the morals' even of the bad.

1. H. A. Washington (ed.), *The Writings of Thomas Jefferson* (New York, 1853), I, 46, 47.

2. Authority was granted by "An Act to amend the penal laws of this commonwealth" passed December 15, 1796, and authorizing "land in or near the city of Richmond, to be purchased for the use of the commonwealth, as will be sufficient for the building of a gaol and penitentiary house, which shall be constructed of brick or stone, upon such a plan as will best prevent danger from fire, and sufficient to contain with convenience two hundred convicts at least, with a yard sufficiently capacious adjoining thereto, for the said convicts occasionally to walk about and labor in, which yard shall be surrounded by walls of such height, as without unnecessary exclusion of air will be sufficient to prevent the escape of the prisoners."

3. Emil Kaufmann, *Three Revolutionary Architects, Boulée, Ledoux, Lequeu*. (Trans. Amer. Philos. Soc., Vol. 42, Pt. 3. [Philadelphia, Oct. 1952].)

4. *Council Journal* (MS, Virginia State Library), February 22 and March 27, 1797. See also *Calendar of Virginia State Papers*, Vols. VIII, IX.

A FRENCH SOURCE OF JEFFERSON'S PLAN FOR THE PRISON AT RICHMOND

BY HOWARD C. RICE, JR.

Thomas Jefferson's interest in the construction of the prison at Richmond was closely related to his concern with the general problem of crime and punishment. While serving in the Virginia Assembly from 1776 to 1779 he drafted as part of the general revision of the laws "A Bill for Proportioning Crimes and Punishments in Cases Heretofore Capital."¹ When recalling this in his *Autobiography*, written at Monticello towards the end of his life, his train of

thought led him quite naturally to the subject of the prison at Richmond. "To pursue the subject of this law," he wrote, "I was written to in 1785 (being then in Paris) by directors appointed to superintend the building of a Capitol in Richmond, to advise them as to a plan, and to add to it one of a Prison." Then, after describing the plan for the Capitol drawn up with the aid of the architect Clérisseau, he resumed:

With respect to the plan of a Prison, requested at the same time, I had heard of a benevolent society, in England, which had been indulged by the government, in an experiment of the effect of labor, in *solitary confinement*, on some of their criminals; which experiment had succeeded beyond expectation. The same idea had been suggested in France, and an Architect of Lyons had proposed a plan of a well-contrived edifice, as the principle of solitary confinement. I procured a copy, and as it was too large for our purposes, I drew one on a scale less extensive, but susceptible of additions as they should be wanting. This I sent to the Directors, instead of a plan of a common prison, in the hope that it would suggest the idea of labor in solitary confinement, instead of that on the public works, which we had adopted in our Revised Code. Its principle, accordingly, but not its exact form, was adopted by Latrobe in carrying the plan into execution, by the erection of what is now called the Penitentiary, built under his direction.

There are also references to the prison in Jefferson's correspondence for 1785 and 1786: in a letter written from Paris, January 27, 1786, for example, he informed James Monroe, "I send by this packet drawings for the Capitol and Prison at Richmond. They are addressed to the Directors of the public buildings." More than ten years were to elapse, however, before the construction of the prison was finally begun under Latrobe's direction. At this time the Virginia authorities again turned to Jefferson for advice. In a letter addressed to Governor James Wood, Jefferson reviewed his earlier efforts:²

Monticello Mar. 31.97.

Sir

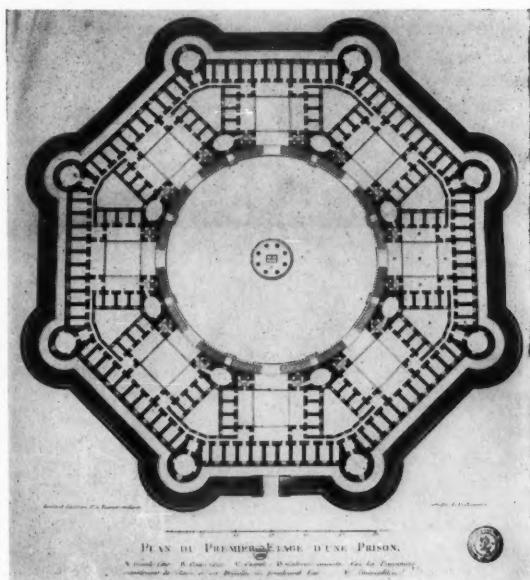
Your letter of the 3d. inst did not get to Philadelphia till I had left it, and therefore came to hand here only this day week. I have bestowed on its subject the earliest attention I could. When on a former occasion the Executive were pleased to apply to me (being then in France) for a plan of a Capitol, they at the same time desired one of a prison. An architect of Lyons had in 1761 proposed the idea of solitary confinement, and presented to that government an engraved plan for a prison on that idea. This was, as far as I know, the first proposition for this kind of punishment. It was *afterwards* as I believe, that a particular society adopted it in England. Pennsylvania is the 2d. & ourselves the 3d. instance of adoption. I received from the architect of Lyons (M. Bugniet) a copy of his plan, and sent it to our executive with the plans & models of the Capitol, and to adopt it to the smaller scale which suited us, I sketched a plan of a prison for us with solitary cells. These draughts probably still exist among the papers of the council. However lest they should not, as I retain the general idea in my

mind, I have sketched it on paper and now inclose the sketch. But to accomodate 200 persons on this plan will cost 37,000 Doll and 7000 D. more if it be surrounded by a fossé which I think very important for securing against escapes. I have drawn the plan however on this scale, but have added an estimate of the same plan reduced to 144. cells, which brings it to about 27,000 Doll and to inclose it with a fossé would add about 5000 Doll. more. Cheap accomodations for 56 persons more might be provided in the two houses making part of the plan, & in barracks within the Area. I presume others have been invited to propose plans, & have no doubt some will chance to hit on something better. If not, & this should be adopted, I would wish to be advised of it, in order to propose some details for giving to the building a plain, decent appearance, and preventing an affectation of ornament which would be entirely misplaced on a building of this character. I have the honor to be with great respect, Sir Your most obdt. & most humble servt.

Th: Jefferson

Jefferson's mention in the above letter of "M. Bugniet" enables us to identify the "architect of Lyons" whose engraved plan for a prison based on the idea of solitary confinement provided a stimulus to Jefferson's imagination.³ Pierre-Gabriel Bugniet, a native of Lyons who died in the nearby town of Charly (Rhône) in 1806 "at an advanced age," worked mainly in his home province where he attained some standing as an architect.⁴ In 1769 he completed a fountain, called the Colonne du Méridien, in the Place des Cordeliers in Lyons. Between 1777 and 1782 he worked on the Pont de l'Archevêché there, and in 1785, with Thibière, built the Prison de Roanne, also in Lyons.

Engraved plan for a prison (1765) after drawing by P.-G. Bugniet. (Bibliothèque Municipale de Lyon)



Bugniet likewise designed private residences, including the Maison du Trésorier Desglat (8-10, rue du Plat, Lyons) and the Château de Sathonay (Ain). Our concern here, however, is not with these buildings that were actually erected, but rather with Bugniet's earlier plan for an ideal prison which he published in the 1760's.

The July 1765 issue of the *Mercure de France*, under the heading "Plan d'une prison pour la ville de Paris, inventé et dessiné par le sieur P.G. Bugniet, architecte," recorded the appearance of Bugniet's publication, which consists of four engravings.⁵ The first of these is a descriptive text (printed in the *Mercure*) designed to accompany three plans (not reproduced in the *Mercure*): a floor plan, elevation, and cross-section. Since these were the plans that Jefferson procured for himself in 1785 and since they provide the complete story of Bugniet's scheme, we show the floor plan, together with the following translation of the explanatory text:

DESCRIPTION

Safety and Health are two essential aims which come to mind when conceiving the idea of a Prison. The first has never been lost sight of, but too often the second has been neglected; to combine these two aims and to reconcile them with a decoration of character is all that Architecture can do.

Character in Architecture consists as much in the form and the inter-relationship of the masses of the building as in the choice, the proportion and the projection of the different members employed. It is for the Public and especially for Artists to judge if this aim has been achieved in the Edifice the idea of which is here presented.

The size of this building which might be thought very considerable is only 68 square *toises* [1 *toise* = 6 feet = 1.949 metres], and yet it might well serve as a general Prison for a Capital, even for Paris, since it is composed of 900 Cells or Chambers, all vaulted in such a way that the Prisoners cannot escape.

Its external form is octagonal, flanked with Towers which are surrounded by a Parapet where Sentinels can be placed, and beyond this by a Fossé or moat.

Its internal form is circular, subdivided into 16 courts (B) joined together by covered Galleries (D) on which the Prisoners can take air, and by Corridors for the use of the Jailers only. 8 of these Courts are separated from each other by double gratings and are intended for different types of Prisoners, such as Debtors, Soldiers, Petty Offenders—men, and women—and Criminals. Thus there is no confusion in the internal policing of the Prison; the honest man who is the unfortunate victim of fortune, or merely imprudent, is no longer intermingled with those whom the laws condemn or stigmatize and whom Society casts out.

These 8 Courts communicate with the main [circular] court which seems to be a reservoir of constantly changing air which is carried into each one of them. The doors and the windows are so arranged in each Chamber, that air can circulate freely; thus there is no longer occasion to fear the sicknesses caused by the stale and impure air that is breathed in ordinary prisons.

The Chapel (C) is placed in the center of the large Court

so that from some of the Chambers and from all the Galleries (D) Mass can be heard. In this way riots which people accustomed to crime might incite if they found themselves assembled in the same place can be avoided. The 8 oval Chambers would serve for the Prisoners of each Court to attend Christian instruction which it is customary to give them at different times: the corresponding Rooms on the Ground floor could be used as Canteens.

On the top of the edifice there could be Reservoirs to collect rain water, which could be piped for the use of the Prisoners on each Gallery.

[At the bottom of the sheet, following the "Description" is the publisher's note: "Se vend à Paris, chez Joullain Md. Quai de la Megisserie dit la Feraille, à la Ville de Rome."]

Although Bugniet's plan appeared at a time when Beccaria's *Dei Delitti e delle Pene* (1764) was turning the minds of enlightened philosophers to questions of prison reform, it remained a mere proposal and was never carried out, at least in this precise form.⁶ The *Mercure*, to be sure, called it a "plan of a prison for the city of Paris," but this is a rather free rendering of Bugniet's own statement that his plan "might well serve as a general prison for a capital, even for Paris . . ." It is possible that Bugniet incorporated some of the features of his ideal scheme in the Prison de Roanne which was built at Lyons in 1785. This prison, adjoining the Palais de Justice on the western bank of the Saône at the foot of the hill of Fourvière, was torn down in 1837, but an engraving after a sketch made in 1806 has preserved a view of its eastern façade.⁷ If we are to believe the author of a description of the Prison de Roanne published in 1797, this edifice bore little relationship to Bugniet's earlier expressed ideal.⁸ M. Delandine, who had been confined here during the Revolution—and who is admittedly and understandably a prejudiced witness—paints a lurid picture of the horrible appearance, the somber vaults, and the lack of fresh air in Bugniet's prison, concluding with the peroration, "O you, architects of despotism and tyranny, if in the future you should dare fulfil your cruel mission, if you should be called upon to erect prisons and to bury human beings alive in them, come and visit Roanne and consult it as your model!"

Jefferson's plan for the new prison, suggested by Bugniet's ideal plan of 1765, was completed in 1785–86. One might even hazard the suggestion that the most important fruits of Bugniet's scheme were to ripen, after much grafting and cross-fertilization, not in his native city of Lyons or in the capital of France, but rather in the capital of Jefferson's native Virginia. The Penitentiary at Richmond was finally built by Benjamin Latrobe, as Fiske Kimball has already written, "is not to be counted among Jefferson's work, though the fruitful idea which it embodied had come from him."⁹ We may now trace the genetic process a step farther back and claim a share of the fruitful idea for the Lyonnais architect Pierre-Gabriel Bugniet.

PRINCETON UNIVERSITY

1. J. P. Boyd (ed.), *The Papers of Thomas Jefferson* (Princeton, 1950), II, 492–507.

2. *Virginia Archives*, Virginia State Library, Richmond.

3. Mlle. Léonie Villard, professor emerita at the University of Lyons, followed up this clue at my suggestion. I am greatly indebted to her for supplying the references on Bugniet and for locating in the Bibliothèque Municipale de Lyon a set of Bugniet's engraved plans. Mlle. Villard has already mentioned the subject in her own book, *La France et les Etats-Unis, Echanges et Rencontres, 1524–1800* (Lyons, 1952), pp. 365–366.

4. Marius Audin and Eugène Vial, *Dictionnaire des Artistes et Ouvriers d'art du Lyonnais* (Paris, 1918), I, 136; Bregnot du Lut and Péricaud, *Biographie Lyonnaise, Catalogue des Lyonnais dignes de mémoire* (Paris and Lyons, 1839).

5. The one Bugniet engraving reproduced here is from the set in the Bibliothèque Municipale de Lyon through the courtesy of this library. Photographs were made by Henri Testout.

6. For another plan of an ideal prison, by one of Bugniet's better known contemporaries, see Claude-Nicolas Ledoux's proposal for a prison at Aix-en-Provence (1784?), reproduced in Marcel Rava, *Claude-Nicolas Ledoux* (Paris, 1945), Figs. 142–144.

7. *Revue du Lyonnais*, 3rd series, IV (1867), opp. p. 341.

8. A. F. Delandine, *Tableau des Prisons de Lyon, pour servir à l'histoire de la Tyrannie de 1792 et 1793. Par A. F. Delandine, ci-devant Bibliothécaire à Lyon, l'un des prisonniers* (Lyons, 1797), pp. 140 ff.

9. Fiske Kimball, *Thomas Jefferson, Architect* (Boston, 1916), pp. 43–45.

THE "FORT" AT NEW SMYRNA, FLORIDA: WHAT IS IT?

At New Smyrna, Florida, some hundred yards back of the small boat harbor, stands an impressive cut-stone foundation of a large building, roughly 85 by 54 feet. This foundation stands some 8 to 9 feet high above the footings. When first excavated twenty years or so ago, it was found to be largely buried in an Indian shell heap. It has been identified variously as a Spanish fort, as a fort erected by Turnbull, who led the settlement of the locality (largely by Minorcans), as the Turnbull manor house, and as an indigo or sugar mill. As far as my knowledge goes it has never been thoroughly studied.

The stone work is of excellent quality. The two projections at the ends could have been later additions; the bin

The Fort, New Smyrna, Florida. Wall on the water side (east). (T. Hamlin)



certainly seems to be. Near by are several wells and what seem to be stone-lined underground granaries of generally bee hive type.

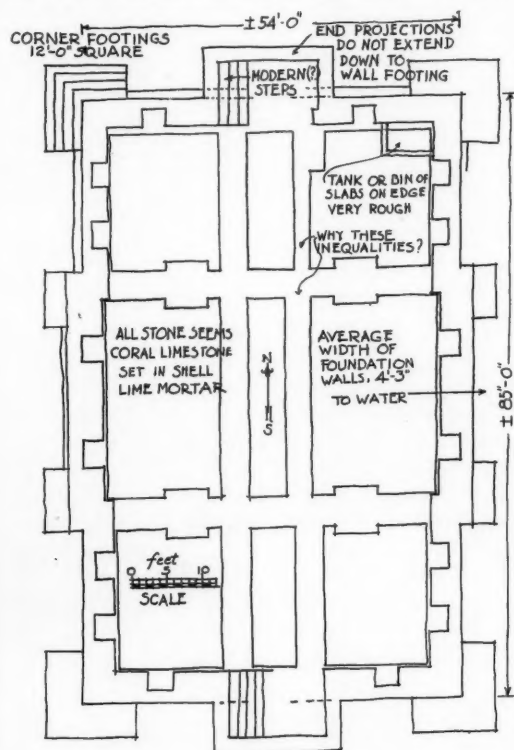
The plan has many curious features—especially the great spread of the four major footings, and the “window embrasures” that seem too small for cannon. The measurements on which the plan is based were made in a great hurry during a short stop at New Smyrna, and with a six-foot tape only, so that their accuracy is problematical; they give, however, the general type and size of the building.

On the “front” of the foundation is a bronze tablet placed by a local chapter of the DAR. It suggests that the ruin is that of a fort built by Turnbull, but records also the suggestion that it may have been a Spanish construction. It also notes the fact that a much later plantation house was built over the ruins and destroyed in the Civil War.

Can any of our readers suggest the original purpose or real date of this unusual piece of excellent masonry, or hazard a restoration of what these extremely heavy foundations carried?

TALBOT HAMLIN
Columbia University

The Fort, New Smyrna, Florida. Approximate plan. (T. Hamlin)



BOOKS

CARROLL L. V. MEEKS, *Editor*
Yale University.

Emil Kaufmann, *Three Revolutionary Architects, Boullée, Ledoux, and Lequeu*. (*Transactions of the American Philosophical Society*, Vol. 42, Pt. 3 [Philadelphia, Oct. 1952]), 128 pp., illus. \$2.00.

Nearly twenty-five years ago the late Emil Kaufmann brought to the attention of scholars the work of a neglected and most original French architect, Claude-Nicolas Ledoux. After that time Kaufmann continued his research and published numerous studies on Ledoux and on the works of other neoclassic architects. Other scholars in the field have, by necessity, based their work on that of the leading student of ‘revolutionary’ architecture. The importance of this essay dealing with the careers of Etienne-Louis Boullée, Claude-Nicolas Ledoux, and Jean-Jacques Lequeu has already been recognized by the Society of Architectural Historians who awarded the author a special honorable mention in 1952.

As in Kaufmann’s preceding works, the newest is richly documented and admirably illustrated. Each of the three parts dealing with an individual architect is logically organized. The first, concerning Boullée, has a long section on the roots of the revolutionary style and then follows an extensive biographical sketch and a penetrating analysis of the artist’s buildings, projects, and writings. The parts dedicated to Ledoux and Lequeu follow a similar logical pattern. There is no elaborate conclusion at the end as the author was planning to bring out a larger work to deal with all the revolutionary architects of the period. Incidentally, the term “revolutionary” does not imply that the architects were active either politically or artistically in the Revolution. Mr. Kaufmann applied the term to architects whose works were revolutionary in an architectural sense and laid the basis for modern architecture.

Briefly stated, the three architects began in the late baroque style, typified by Jacques-François Blondel, and then came under the influence of neoclassicism which predominated in much of their work. However, each developed an original style through the use of geometrical forms and the omission of decoration. Boullée’s work represents the breaking away from the past and the struggle to use these new forms. The designs by Ledoux show the next step in the search for a new expression, while the projects of Lequeu by returning to the styles of the past contain a note of despair and disillusion. Besides ably interpreting these architects and their works in terms of their own time (the novel character of the designs resulted in most of them stopping at the project stage), Kaufmann attempts to show that the revolutionary character of the work was an important step in the development of modern architecture.

Conditioned by the abstract forms of the International style in architecture, the modern critic often tends to consider works of the past in terms of the taste of today and even tends to try and find an historical precedent for, or a precursor of, a modern movement. While it cannot be denied that the severe and unadorned geometric character of the "revolutionaries'" designs resemble buildings of our own day, Mr. Kaufmann, at times, seems too often to dismiss as insignificant the neoclassic portions of projects at the expense of allegedly more revolutionary features which often appear to this reviewer to be basically neoclassic.

The footnotes are admirably documented and a joy to read. The only omission noticed concerned Joseph-Jacques Ramée; it was Christopher Tunnard's excellent article on Ramée's designs for Union College, Schenectady, in the February 1947 issue of *The Architectural Review*.

These criticisms are minor, but permissible in view of Kaufmann's invitation, "It is to be hoped that others will not limit themselves to pointing out the shortcomings of this attempt, but will carry on with independent and better interpretations based on a renewed scrutiny of their works, and of the treatises referred to in the text." Such generosity and humility on the part of a man who has devoted a major part of his life to this work are all too infrequent.

Kaufmann died in August having, however, completed the manuscript of a book on the revolutionary architects entitled *Architecture in the Age of Reason*.

THOMAS J. MC CORMICK, JR.
Virginia Museum of Fine Arts

SAH NEWS

THE 1954 ANNUAL MEETING

The annual meeting of the Society of Architectural Historians will be held at Philadelphia from Thursday, January 28, through Sunday, January 31. As in other recent years, the meeting will be held jointly with the College Art Association. The Bellevue-Stratford Hotel, Broad and Walnut Streets, will be headquarters for both organizations. Individual notices will be sent out to the membership in advance of the meeting.

BACK ISSUES OF THE JOURNAL

We are frequently asked to supply copies of the early issues of the JOURNAL to libraries wishing to complete their files. Our own stocks of these issues are exhausted. Would readers who have no further use for numbers in the first

two volumes, 1941 and 1942, please communicate with Miss Barbara Wriston, Museum of Fine Arts, Boston 15, Mass., Treasurer of the Society, and advise her under what circumstances they would be willing to part with their copies.

PROGRESSIVE ARCHITECTURE HISTORICAL SERIES

The periodical *Progressive Architecture* is inaugurating a new feature, a series of two-page presentations of buildings in the United States that have made important contributions to *structural* and *architectural* progress. It is planned to have this department appear monthly. In preparing this series the editors of *Progressive Architecture* have consulted with members of the Society and have tentatively chosen to publish the following buildings: 1. Slater mill, Pawtucket, R. I.; 2. Farmers' and Miners' Bank, Pottstown, Pa.; 3. Larkin Building, Buffalo; 4. Ford Highland Park Plant, Detroit; 5. Eads Bridge, St. Louis; 6. Cast-iron building, Washington and Murray Streets, New York; 7. Cooper Union, New York; 8. Jayne Building, Philadelphia; 9. An early railroad station design; 10. Hallidie Building, San Francisco; 11. Leiter Building, Chicago; 12. Monticello, Va.

Additional suggestions should be sent to Mr. Charles Magruder, Managing Editor, *Progressive Architecture*, 330 West 42nd Street, New York 36, N. Y.

THE NATIONAL TRUST SUMMER SCHOOL

For the third consecutive year the summer school on the great houses of England will be held at Attingham Park by The National Trust in association with The Shropshire Adult College. The school will last for three weeks from July 7 through July 28, 1954. The approximate over-all cost will be \$200. Registration is limited to 35. Application should be made through one of the following sponsors in this country: Daniel M. C. Hopping, 120 Midland Avenue, Bronxville, N. Y.; Bertram K. Little, Society for the Preservation of New England Antiquities, 141 Cambridge Street, Boston 14, Mass.; Mrs. Lydia Bond Powel, Metropolitan Museum of Art, New York 28, N. Y.; Hardinge Scholle, National Trust for Historic Preservation, 716 Jackson Place, N. W., Washington 6, D. C.; Charles C. Wall, Mount Vernon, Va.; Miss Barbara Wriston, Museum of Fine Arts, Boston 15, Mass.

Permanent addresses for the school are: Attingham Park, Shrewsbury, Shropshire (George Trevelyan, Warden), and The National Trust, 42 Queen Anne's Gate, London S. W. 1 (attention Joshua Rowley).

